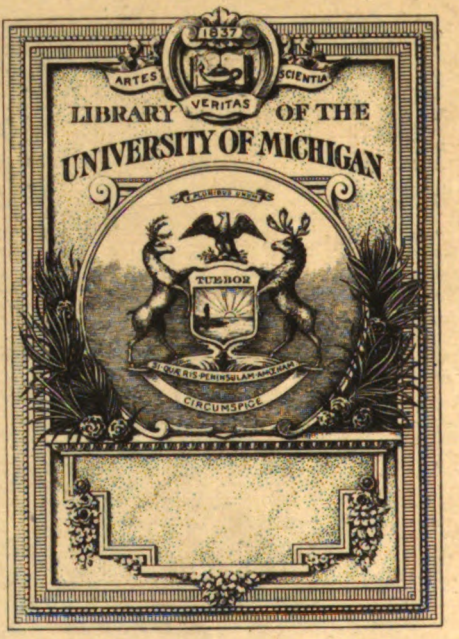

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JOURNAL of the OUTDOOR LIFE

Published Monthly

In the Interests of the Anti-Tuberculosis Campaign

370 Seventh Avenue, New York City

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Are We Teaching Our Children to Be Invalids?

PERHAPS not, but how much attention do our schools give to teaching our children the rules of health, by which they may avoid tuberculosis and other preventable diseases?

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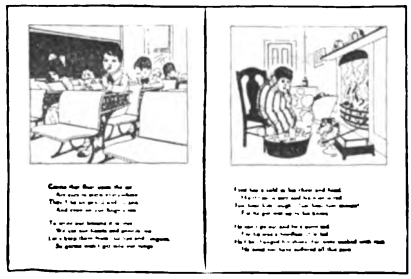

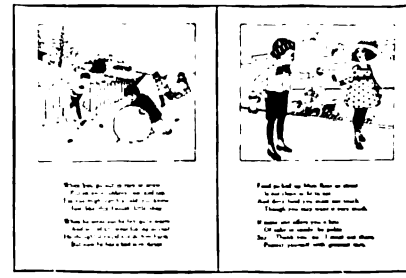

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MARGOLA GILLMORE AS EILEEN CARMODY, AND OTTO KRUGER AS STEPHEN MURRAY IN "THE STRAW," EUGENE O'NEILL'S POWERFUL DRAMA DEALING WITH THE TUBERCULOSIS PROBLEM.

Journal of the
OUTDOOR LIFE

Volume XIX JANUARY, 1922 No. 1

"The Straw"

A Review of Eugene O'Neill's Play Dealing With the Tuberculosis Problem

By HELENA V. WILLIAMS

"I TELL you we'll win! We must! There's always hope, isn't there? Your predictions —all the verdicts of all the doctors—what do they matter to me? This is—beyond you! And we'll win in spite of you!"

In these words, Eugene O'Neill, the author of "The Straw," which has become one of the most discussed dramatic productions New York has seen in several seasons, expresses the very essence of the human spirit. Through them he tells us that knowledge, experience, intelligence, all these may unite in declaring that hope is futile, yet the unquenchable fire of the life force within us rises above material facts and clings defiantly and exultantly to the last feeble straw—a straw that has been known to inspire men with strength for victory where failure seemed inevitable.

The action of the play, with the exception of one scene, is laid in a sanatorium, although the drama itself is one that has occurred in every quarter of the globe, under every variation of circumstance, since time immemorial. Because its leading characters are fighting tuberculosis, however, "The Straw" should be of particular interest to those who are trying to overcome the power of the tubercle bacillus.

Eileen Carmody is a gentle, sweet young girl whose sensitive spirit craves love as a plant craves life-sustaining sunshine. But on every hand she discovers that the devotion she gives so freely and eagerly is returned only with selfishness and indifference. She is the oldest of the five motherless children of Bill Carmody, an ignorant, whining, drunken bully. Eileen, thanks to her mother, has an education, but since the latter's death she washes, mends, cooks, and cleans for the entire family. It is the old, old story of overwork and worry which undermine the constitution. One year of this drudgery results in her succumbing to tuberculosis.

Fred Nicholls, a suitor of Eileen's since high-school days, has an attitude of condescending superiority toward the Carmodys. and when Eileen, yearning for affection and sympathy, turns to Nicholas for comfort, she learns that his concern over the infectiousness of tuberculosis is far stronger than his love for her.

Wounded in spirit and worried over her condition, like thousands of patients who have taken this step before her, Eileen enters the Hill Farms Sanatorium. There she meets Stephen Murray, who has been a reporter on a small town daily for all of ten years, and who hails his stay at the sanatorium, even as a patient, as a deliverance from a humdrum existence which he has grown to despise. Murray has a dormant ambition to write fiction and he enthusiastically accepts Eileen's suggestion that he begin while "taking the cure." Eileen, eager to help, types the manuscripts, and helps to keep up his vaccilating interest with unfailing encouragement and faith. Her case is favorable and her life at the sanatorium interesting and absorbing.

Four months later Murray is to be discharged from the "san" as an arrested case. But Eileen, who at first improved under the treatment, has been losing weight. On the night before Murray's departure, Eileen meets him by appointment at a crossroads near the sanatorium, and here, overcome by desperate longing, and fearful of the loneliness his leaving will mean to her, she tremulously tells him of her great love for him, a love which she knows is not returned. At the close of her heart-breaking confession which leaves Murray grief-stricken and shaken, she stammers:

"Remember me—and perhaps—you'll find out after a time—I'll pray God to make it so! Oh, what am I saying? Only—I'll hope—I'll hope—till I die!"

So Eileen, too, continues to grasp at the straw which upholds all humanity. But with nothing on which to base her hope, the frail hold weakens and the invader Disease makes more rapid progress. Then, one day Murray comes to see her. The nurse, devoted to Eileen, tells him that the girl's case is hopeless and begs him to do what he can to make her end happier—if possible to tell her that he has learned to love her. Heartbroken and blaming himself utterly for the hopelessness of Eileen's condition, Murray agrees to the lie, and, kneeling by the side of her recliner, he asks her to become his wife. Radiantly happy, Eileen consents. As her frail hand gently strokes his face and her adoring voice plans for their future, he suddenly awakens to the realization that he loves Eileen—that for him life without her is unthinkable. "Oh, I do love you, Eileen! I do! I love you, love you!" he sobs brokenly. And then he remembers the verdict. But strong in his new-found love and determined to wrest happiness from fate, he defies the opinion of science and the power of mere matter. "Love isn't in the materia medica. How dare you use the word hopeless, as if it were the last? What do you *know*? Can you say you *know* anything?" "I?" humbly replies the nurse to his furious demand. "I know nothing—absolutely nothing!" But Murray strides back to the porch and kneels by Eileen's side—and happily, confident of victory, they plan their future together.

"The Straw" has been criticized as a depressing play, but it is in reality one of faith and inspiration. Probably there is no better way of explaining this viewpoint than in the nurse's reply to Murray's passionate outburst. "There must be something back of it—some promise of fulfillment—somehow—somewhere—in the spirit of hope itself."

Waste of Effort

(*Apologies to Mr. Walt Mason*)

BEFORE the years had made me wise, I filled the air with plaintive cries. I saw things going to the dogs. The Sanatoriums were slipping cogs. Germs reigned with a triumphant whoop. Sanitation ever in the soup. Where'er I looked I saw *some dust*, and swore that Sans should not be thus.

I blew long spiels on this one need, "Rid the Sans of Dust" was my creed. I viewed forever with alarm and vowed I'd lose a leg or arm—if that would stem the sinful dust; but now I dream and let it crust.

The Sanatoriums go on the same however patients play the game. The "arrests" seem to be on deck—though I foresaw they'd be a wreck. Now other fellows walk the floor and cuss the Sanatoriums and roar, they stand around the "hombre's" shack and swear they never saw the like and they bombard the pure, fresh air with words, cuss words, that get nowhere—predicting doom in forty styles, because they say the dust is vile. But I have wisdom deep and wide, I lie in bed and let things slide.

Not all the rumpus I could raise would change the Sanatoriums' ways. The dust is there and there to stay, and cussing doesn't take it away. The more they roar and walk the floor, the more the dust and Germs will soar. Now as for me I ne'er deride but lie in bed and let things slide.

And now I let the days wag by without a protest or a sigh. A million Germs are out of place, a million Germs float round in space. But everything will come out all right. Loose Germs will perish in a night. The Dust that looks so much to-day will very soon be swept away. The sun is shining overhead and all loose Germs will soon be dead.

I let the tail go with the hide. I lie in bed and let things slide.

CORK.

S. C. T. H.
State Park, S. C.

The Spirit of the Double-Barred Cross

A Pageant in Six Episodes

By HELENA V. WILLIAMS and ELIZABETH COLE, National Tuberculosis Association, New York

FOREWORD

The Pageant was presented at the Waldorf-Astoria Hotel, New York, at the Seventeenth Annual Meeting of the National Tuberculosis Association, on June 16, 1921.

It was written by Miss Helena V. Williams and Miss Elizabeth Cole. Miss Williams also designed the costumes and was responsible for the settings.

The Pageant was directed by Mr. Eugene Roder, the benefit of whose experience in the world of drama, both the spoken and the silent, was contributed with generous enthusiasm.

The players of the Pageant gave freely their interest and time.

The costumes, lighting, stage hangings and properties were furnished at the lowest possible cost.

The Pageant was, withal, a tribute of sympathy paid, by those eager for its success, to the cause of spreading broadcast the ways of Health.

THE PROLOGUE

(*Spoken before the curtain by the spirit of the Double-barred Cross.*)

The Spirit of the Double-barred Cross would bid you welcome.

Summoned by the cries of those who suffered from the treacherous plague Tuberculosis, men with kindly hearts and scientific minds set forth upon a brave Crusade. To spur them on and give them courage in their quest they have the crimson sign, the cross with double bars. 'Twas thus that I was born. To-night this spirit fain would lead you, you with sympathetic hearts, along the paths and through the mazy ways their quest has taken them. I fain would show you people, real and working, phantoms of disease and ill-health, knights and leaders bold who conquer sickness. I, forsooth, will spread before your eyes the deeds of noble men and women who, as leaders, true, ingenious, have marched on this great Crusade.

THE PRELUDE

SCENE 1—THE DISEASES OVERCOME HUMANITY

(*The curtain rises and light reveals, behind a thin gauze curtain, Humanity which struggles with Disease. Humanity is of no age, of no class, and yet is of all ages and all classes. The Diseases are veiled, writhing figures. They are Typhus, Black Plague, Yellow and Scarlet Fevers, Diphtheria, Measles, Malaria, Pneumonia, and Tuberculosis which towers over all and is the worst, and in the struggle Humanity is always overcome.*)

CURTAIN

THE SPIRIT: Bear with me a little while. Long years ago in times which history may have painted merrie, men knew not the ways of healthful life. In crowded, dirty dwellings where pure air and water clear were seldom known mayhap lived those with laughing hearts and busy lives. But oft there entered in a cruel foe that made a loved one cough, grow weak, become now pale, now burning red, and slowly waste away. Consumption was the foe. And where one died another soon would follow. Disease of every kind lurked, veiled, unseen, and snatched old men and youths and maidens. The smallest babes, most innocent, were never safe. Humanity, beset on every side by grasping sickness, struggled, fought, but never came victorious from the battlefield of life.

The Knights of old who bravely fought against life-seizing enemies were dead. There were Crusades no more. The great King Arthur, whose strong sword, Excalibur, lay buried in the Lake, no longer lived to aid the weak ones of the land. And all men cried for help, but no help came. The Table Round was dead.

SCENE II—THE DEATH OF KING ARTHUR

(*A black velvet cyclorama forms the background for the entire performance. About three feet in front of this is hung a gauze curtain. A purple couch with a scarlet pillow is the only setting for this scene which represents King Arthur's tent. Outside is heard the clash of arms, the cries of warriors, the groans of the wounded. Occasionally, the sound of a trumpet rises above the tumult. Above the noise, are heard the voices of King Arthur and Modred, who are engaged in hand-to-hand combat.*)

MODRED: At last, thou simple, virtuous fool! . (*He strikes at Arthur.*) Thus craft shall overthrow incompetence!

(*The two men clash swords again. Modred strikes Arthur's helmet and severely wounds him. Arthur gathers all*

his strength for a last blow. Modred stands motionless, as if hypnotized by the power of the King and his flashing sword.)

ARTHUR: One last act of kingship shalt thou see before I pass! Excalibur, thou hast not failed me yet. But one more fatal blow to avenge thy stricken lord! (*He kills Modred with the magic sword, Excalibur. An instant later, Sir Bedivere rushes panting into the tent.*)

SIR BEDIVERE: Make haste, my lord, if thou wouldst save thy kingdom! One by one thy knights have fallen at the hands of the heathen hordes! I, Bedivere, alone remain of all who served thee! (*He sees Arthur mortally wounded and Modred dead.*) My lord, what felonous hand hath dared to deal this blow!

(*He goes to Arthur and gently assists him to the couch.*)

ARTHUR: The last of Arthur's knightly deeds is done. But this much comfort I take with me. Modred, in seeking to destroy, himself is conquered for all time.

SIR BEDIVERE: (*Turning to the body of Modred.*) Ah, Modred, thou thoughtst with lies and trickery to undermine my liege at Camelot, but thus base ambition's blindness hath led thee to thine own destruction. Nor will thy hordes succeed where thou hast failed.

ARTHUR: So they are gone—and with them all the bravery and pride of chivalry. Oh, my knights, did I teach thee all high courage, strength, idealism, but to have these sink into oblivion at the touch of a traitor's sword?

BEDIVERE: Nay, nay, my lord, not so! Thy teachings shall echo through the ages, and when an aching world again cries out for aid, thy chivalry shall rise to overthrow the foe of a later day.

ARTHUR: If that were true, my Bedivere, I could go to rest in peace. (*He becomes delirious. One by one the ghostly figures of his knights appear behind the gauze curtain.*)

ARTHUR: Ah, my Lancelot, bravest, noblest knight that ever lived! How couldst thou hurt me so! But in thy holy life thou hast atoned for all thy wrongs. Come hither, Lancelot. Gawain, reckless and defiant, but withal, so brave. Gareth, a prince who bore humiliating servitude with courteous serenity. Kay, master of our food and drink—a thankless task at best. Tristram, thy boldness soared to dangerous peaks. Bors, staunch and true, of my Lancelot's kin. Percival, the pure. Verily a blameless life, ordained to renew lost faith in faulty human nature. And Galahad, blessed youth, thine eyes have seen the Holy Grail.

(*Arthur places his hand on Bedivere's arm. He speaks with difficulty.*) Bedivere, first of my knights and the last to go. Most faithful follower of all. (*With Bedivere's assistance, he raises himself to a sitting posture and summons all of his remaining strength.*) This must not be the end. Chivalry and selfless love can never die. You, my knights of the Table Round, whose strength and courage have done so much to rid the world of cruelty, let thy dauntless spirits guard with me the future of our race. The time will come when chivalry shall rise again, like Phoenix, from the ashes of oblivion. (*He pulls Excalibur out of his sheath and hands it to Bedivere.*) Bedivere, go take Excalibur and hurl him into the center of the Lake. There shall he remain until another age be needful of his strength. Then, truer, keener, after his long rest, shall he serve again to defend the weak, and be the emblem of the fair and strong. Go—Bedivere—for my time is near, and I would that my last mission be speedily fulfilled. (*Bedivere leaves the tent with Excalibur.*)

ARTHUR:

"The old order changeth, yielding place to new,
And God fulfils Himself in many ways.
Lest one good custom should corrupt the world."*

(*He dies.*)

CURTAIN

* Tennyson's *"Idylls of the King."*

EPISODE I

LAENNEC OF FRANCE, 1781-1826

THE SPIRIT: But deeply hid within the laws of nature truths lay long concealed. And men whose minds shone out with brilliant comprehension bit by bit delved down and searched out certain laws.

Among these thinkers was Laennec of France. To diagnose Disease he used the method nature had for bearing to the ear a sound both clear and loud. He fashioned out an instrument and called it "Stethoscope." He sorted out the sounds within the body made by heart, by lungs. Results of his analyses he wrote within a book, "A Treatise on Diseases of the Chest." A vast long-living benefit unto the field of medicine was brought by this great man. He opened paths less thorny for the ones who search out phthisis. And he led Crusaders onward out of tangles in their quest.

THE SPIRIT DISAPPEARS

EPISODE I, SCENE I—THE PLAYTHING OF LAENNEC

(Two young schoolboys laughingly come upon the stage. They are dressed as boys of well-to-do families, in blouses and trousers of the period. They are about nine and thirteen years of age and carry schoolbooks. These they place upon the ground and toss a ball to each other. It rolls along the ground to a piece of pipe which Laennec, the younger of the two, discovers. He brings the hollow iron gleefully to his friend, Bayle, calling through the new plaything as if it were a megaphone.)

LAENNEC: O, Bayle, see what I have discovered—a fine hollow pipe.

BAYLE: (*Running toward where the ball has rolled.*) 'Tis a dirty old thing. I'd rather the ball.

LAEN.: (*Who had pipe to his ear while Bayle was talking.*) No, hark, my friend, what a loud-sounding voice comes through the pipe to the ear. Hold the pipe to thine ear. (*Business of Bayle's holding pipe.*) Now, hark. (*He shouts laughingly.*) What ho! Art thou deaf?

BAYLE: (*A bit provoked and frightened at the shock.*) No, but I will be. 'Tis bewitched. Sure the pipe's bewitched. (*Bayle drops it and Laennec picks it up again.*)

LAEN.: Not so. 'Tis a wonder of nature. Nay, I'll whisper this time. (*He gives the pipe to reluctant Bayle and whispers.*) What thinkest thou now, am I a ghost from the grave?

BAYLE: (*Really frightened.*) I'll not stay for thy mad pranks. (*Starts away.*)

LAEN.: (*Bringing him back.*) No, no, I would experiment further. Aid me in this. Ha! ha! I'm a discoverer, my Bayle. Art proud to be known to me? (*Bowing with pipe as sword.*) I am a sound explorer. Here, take this pin. (*Holds pipe to his own ear.*) Now scratch at that end. (*Bayle scratches with pin.*) Just as I thought—'tis loud and clear.

BAYLE: Sure, I understand it not—a strange uncanny pipe do I call it.

LAEN.: Nay, faith, 'tis not the pipe—'tis the shape, cylindrical. I'll prove it to you. (*Tears a sheet of paper from schoolbook and rolls it into a cylinder.*) Now scratch with thy pin on this. (*Bayle does so and Laennec jumps up and down with joy.*) (*Shouts*) Bayle! 'tis louder through paper than through iron. 'Tis a marvel. I hear as with ten ears.

BAYLE: (*In wonder.*) I make naught out of this. Sure, I believe this place is bewitched. There's a charm in the air. Let's be off to school. (*He starts off.*)

LAEN.: Thou art a doubting fellow, but I'll convince thee yet. This is no enchantment. This is a discovery. Sure, thy friend is a genius. You wait (*laughing*), I'll shake up the silly old world with my sound explorer.

(*The boys disappear talking and laughing.*)

CURTAIN

EPISODE I, SCENE II—THE DISCOVERY OF LAENNEC

(A beautiful young girl lies ill in bed. Dr. Laennec is in consultation with his friend, Dr. Bayle, at her bedside. The mother of the girl, matronly but not old, and a Sister of Charity whisper near a table in the background. Dr. Laennec is tall, slender, about thirty-two years of age. He is clean-shaven and handsome. Dr. Bayle is older, less slender. They both wear costumes of the period and their cloaks and hats are on a chair nearby.)

LAENNEC: (*With head on breast of girl over the coverlet.*) Could I but hear more clearly, then would I be able to distinguish the character of her illness. Sure, I think 'tis phthisis, but I cannot recognize the rhonchus. (*Suddenly to Bayle.*) O, Bayle, mind you the pipe of our boyhood which you swore was bewitched? (*Bayle nods.*) And the cylinder of paper? (*To nurse.*) Quick, nurse, fetch me a quire of paper—a pot of glue. (*Nurse goes out—Laennec to mother.*) I've recollected a childhood discovery of mine whereby the sound can be carried loud and clear to the ear. I may not have to apply the leeches and bleed thy daughter in the thigh.

MOTHER: (*Coming forward.*) Oh, doctor, I pray you bleed her—'tis the only way. (*To Dr. Bayle.*) He is too bold with his new untried methods of science. I would have him abide by the old.

(*Laennec goes back to table to work with the nurse.*)

DAUGHTER: (*Hysterically.*) Oh, mother, let him not use the leeches. Good Doctor Bayle, I fear the leeches. (*This speech makes her cough.*)

BAYLE: (*To daughter.*) Fear not, my child. The good doctor may not have need to bleed thee.

MOTHER: But whoever heard of not bleeding for phthisis? He knows not what he does.

BAYLE: (*To mother.*) Have patience, my friend, this doctor has all men of science at his feet. His pupils love him and admire him for his skill with medicine. All Paris knows of his clinics. You are indeed fortunate to have him in attendance on your daughter.

MOTHER: You know there is naught money will buy that my daughter shall not possess (*weeping*), save health alone, God's most precious gift.

LAEN.: (*Overhearing last sentence.*) My friend, with God's help we will bring

Health into your daughter's possession. (*He brings forward a paper cylinder, a bit larger at one end, which end he places over the girl's chest. She has been coughing from time to time but not over-doing this.*)

(*Laennec kneels on bed with one knee and listens. He smiles to Bayle.*) I heard a guggling sound. 'Tis a mucous rhonchus. (*He listens again in the manner of a doctor.*) 'Tis not moist and crepitous, nor is it whistling nor snoring. I can hear distinctly. There is tubercle present.

BAYLE: You truly have heard with your boyhood discovery? Ah, Renè, you were ever an original thinker. (*He takes the paper cylinder and carefully examines it.*)

MOTHER: Well, will you bleed her now? 'Tis the only way with consumption.

LAEN.: Not so, t'will only take away the strength. I would soften the mucous tuberculous matter within the lungs by burning resin on a hot iron or brasier.

MOTHER: Shall I procure three kinds of mushrooms and red cabbage for her?

LAEN.: No, I believe not in mushrooms, cabbage, wines, frogs nor acorns. Neither do I countenance the use of emetics as my contemporary, Broussais, advocates.

BAYLE: (*Coming forward.*) You have taken away all the chief cures for phthisis. What would you put in their places?

LAEN.: I maintain that the best cure is change of situation. (*To mother.*) Take your daughter at once to the seaside. There let her take sulphureous waters internally and externally. Take her at once.

MOTHER: But, Doctor, she's far too weak to be moved. T'will tax her strength and kill her.

LAEN.: If you move her with care, all will be well—her cough will respond to the seaside atmosphere. I have sent many patients, indeed I myself have been thither, and all are greatly benefited. (*To daughter.*) You will like the seaside, will you not?

DAUGHTER: (*Nodding weakly.*) I care not, so long as you do not bleed me.

LAEN.: Au revoir, good mother, I wish your daughter Godspeed in her possession of health.

(*Laennec and Bayle come forward and talk together.*)

BAYLE: So thou hast heard loud and clear the sounds of the chest?

LAEN.: Easily, friend. Just try it upon my chest. (*Bayle listens through stethescope to Laennec's chest through clothes.*)

BAYLE: By my life, 'tis a wonder. Thou wilt mayhap benefit thine own case of phthisis.

LAEN.: (*Enthusiastically.*) In truth, yes. What will I not now be able to accomplish with the aid of my magic stick! I'll fashion me one in thin wood. I'll have it in two parts for easier carriage. I'll use it for heart beats. I'll distinguish more definitely the crepitant rale. What will I not do with my heart and lung explorer? By Jove! I know what I'll name it—the Greek - Stethescope—heart explorer. Ah, 'tis a happy day for us, my Bayle.

(*To be continued*)

The Clinic for Negroes*.

By H. R. M. LANDIS, M.D., Clinical Dir ector, Henry Phipps Institute, Philadelphia.

IN the earlier period of the Phipps Institute's work, it was found impossible to do satisfactory work with the Negroes. Those who came to the clinic, more or less by accident, could seldom be induced to persist in their attendance, and no considerable progress could be made with them as individuals. Moreover, the educational effort, which at the time served to bring increasing numbers of whites to the clinic, had no perceptible influence in increasing the interest of the colored people in their health.

It seemed likely that this situation could be changed by adopting the principle of operating through the medium of selected colored workers. The Whittier Center, an agency which had long worked for the welfare of the Negroes, was induced to employ a colored nurse to work as a member of the staff of the Institute. Mrs. Tyler was engaged in 1914. She was taught the methods employed by the white field nurses and instructed to go among the colored people and induce any with whom she might make contact to come to the clinic, in so far as there was reason to think that they might be suffering from lung trouble.

Mrs. Tyler's work, from the beginning, had an appreciable influence. Alone it did not seem to offer a complete solution of the difficulty. The situation was again greatly improved when a capable colored physician, Dr. Minton, became associated with the clinic, in 1915.

Dr. Minton's work has been of high quality, and after several years there is no reason to

* Read before the Sociological Section, National Tuberculosis Association, Annual Meeting, New York, June 14 to 17, 1921.

feel that, allowing for the matter of intelligence (and in this the Negro does not suffer particularly when compared to the white patients of the dispensary), work with the Negroes is in any way less successful than with the whites.

In the interval, the nursing service has been supplied in various ways. The Whittier Center continued for some years to support a worker. Later, the Pennsylvania Tuberculosis Society supplied one. Later still, the Philadelphia Health Council has supplied one. At times there have been two nurses on the service, at other times only one. The past service of Mrs. Tyler has been mentioned. Miss Turner was also associated with this clinic at one time. At present the organization of the Negro Clinic is as follows:

Dr. Landis in charge—Paid by the Phipps Institute and by the Department of Health of the State of Pennsylvania.

Dr. Henry Minton (colored), since 1915—Paid by the State Department of Health.

Dr. Frank Boston (colored), 1921—Paid by the State Department of Health.

Dr. G. A. Saunders (colored), 1921—Paid by the State Department of Health.

Miss Johnson (colored), since 1915—Field nurse, paid by the Philadelphia Health Council.

Miss Ernst (colored), since November, 1920—Field nurse, paid by Whittier Center.

Treatment for syphilis, whenever encountered, is also afforded by Dr. Baird Stuart of the Phipps Institute staff.

The work of the clinic for 1920 is summarized as follows:

MISS ERNST'S REPORT (2 MONTHS)

New patients		266
Unfinished cases	37	
Positive tuberculosis	116	
Positive and Luetic	4	
Non-tuberculosis	52	
Non-tuberculosis and Luetic	22	
Indefinite	25	
Indefinite and Luetic	10	
Patients' visits to the dispensary		2,099
Patients sent to hospitals		34
Patients referred to sanatorium		12
Cases closed		69
Death	19	
Moved	20	
Lack of cooperation	25	
Referred to private physicians	5	
Nurses' visits to the homes		1,126

MISS ERNST'S REPORT (3 MONTHS)

WHITE PATIENTS

	Male	*Female*	*Children*
New:	10	1	9
Old:	17	11	14
Total			62

	Total
Pre-natal patients—3 old, 15 new	18
Babies—4 old, 11 new	15
Pre-school age—2 old, 5 new	7
Gynecological Clinic	4
Patients' visits to clinic	190
Nurse's visits to homes	68
G. U. Patients	44
Tbc.	1
Gynecological patients	2
Post-natal patients	14
Pre-natal patients	27
Wassermanns	34

The following table shows the number of colored patients from the opening of the Institute up to the present:

NEW COLORED PATIENTS
1904-1921

	Male	*Female*	*Adult*	*Child*	*Total*
1904..	32	15	40	7	47
1905..	18	10	26	2	28
1906..	46	30	55	21	76
1907..	36	22	50	7	57
1908..	33	16	43	6	49
1909..	36	31	57	10	67
1910..	20	17	32	5	37
1911..	28	20	37	11	48
1912..	23	22	41	4	45
1913..	34	23	49	8	57
1914..	66	55	106	15	121
			No	No	
1915..	56	61	record	record	117
1916..	70	71	"	"	141
1917..	73	69	"	"	142
1918..	70	70	"	"	140
1919..	77	113	"	"	190
1920..	129	116	"	"	245
Total					1,487
1921 (Feb., Mar., Apr.) New cases					114

Mostly ward patients.

Colored nurse began work.

Colored patients receiving treatment in 1919:
833 individual patients;
1,047 treatments given to 833 patients.

Colored patients receiving treatment in 1920:
1,358 individual patients.
2,099 treatments given to 1,358 patients.

It will be noted that in 1914, the number was more than double as a result of the educational efforts of the colored nurse for about six months; and later by the addition of another colored nurse.

During the years 1916-1918, the number stayed at about the same level. This can probably be credited to the unusual prosperity due to war activities. With the closing of many of the war industries, the number of patients noticeably increased—(190 in 1919; 245 in 1920). For the first three months of the present fiscal year, the number of new patients has been 114. If this ratio continues, the number for the year will approximate 450. The figures given here relate to the general

tuberculosis dispensary. In November, 1920, an additional colored nurse was secured. She has charge of the syphilis clinics and of the colored pre- and post-natal clinics.

About 30 per cent. of the Negro patients visiting this dispensary have syphilis, as shown by a Four Plus Wassermann. The result is to show that many need specific treatment. These clinics are held on Monday afternoons for women and children, and on Thursday night for men. The result of putting a Negro nurse at work among the Negroes is again well shown by the development of the pre- and post-natal work. The following table shows the development of this work:

NEGRO PATIENTS IN SYPHILIS CLINIC

(Report for 4½ months)

	Male	*Female*	*Children*		
New:	24	29	7		
Old:	63	65	18		
	87	94	25		
Total				206	
Pre-natal					28
Babies				37	
Pre-school age				10	
					47
Number of visits to homes					258

Starting with nothing, she now has 28 pre-natal and 37 post-natal patients under observation.

Another Negro activity of considerable interest is the establishment of two classes for under-nourished children. These classes are conducted by a colored nurse and a colored physician. Although conducted under the auspices of the Philadelphia Health Council, they are the result of the demonstration class conducted by the Institute a year ago.

It might be added that since the first colored nurse was engaged in 1914, seven are now employed in public health work among the Negroes. The Visiting Nurse Association has two, the City two, the Philadelphia Health Council two (one of whom is assigned to the Institute), and another is shortly to be added; and the Whittier Center has one, also assigned to the Institute.

Two additional Negro physicians have recently been added to the staff of the Institute.

The problem of dealing with the Negro is becoming a serious one for us. The work has developed to such an extent that it threatens to swamp us. We have under consideration the renting of a building nearby, and transferring to it all of the Negro activities. This plan, however, will have to be approached carefully, in order to avoid the suspicion of segregation. A suggestion as to this plan has already aroused suspicion. In order to complete the experiment, however, this would seem to be advisable. The feasibility of utilizing Negro physicians and nurses has been definitely proved. What they can do, if placed more completely on their own resources, remains to be seen.

SUMMARY

As the matter stands at present, there is operating at the Institute a clinic held by and for Negroes (with expert white guidance and supervision), which is doing health work on the most modern lines and with a degree of competency which compares favorably with that of the average clinic for whites of the same kind. It is the only venture of the kind in this vicinity, and we know of no other like it anywhere. The general method of approach is that followed by most successful effort in connection with the Negro (as good a quality of endeavor by the Negro themselves as can be secured with careful, sympathetic direction and supervision by whites).

The importance of the problem may be emphasized. Philadelphia has to-day upward of 125,000 Negro residents. They are only partially segregated. As servants, they go most intimately into many homes of the whites, and are a constant source of possible infection there. Vienna to-day, under conditions bordering on actual starvation, has a tuberculosis death rate of just about 500 per 100,000 living. Among the Negroes of Philadelphia in 1919 the death rate, on the same basis, was 477. Viewed in this light, the problem is truly appalling.

All concerned, the Whittier Center, the Pennsylvania Society, the Philadelphia Health Council, and those who have supported the Phipps Institute, have reason to congratulate themselves on the success of this effort to date.

For the future it may be possible, with combined and additional support, to predict the following accomplishments:

The system of work (active, well trained and well supported colored workers, supervised by and associated with the most competent whites) may be extended to cover the problem in this city.

Certain parts of the work may eventually be transferred to the city or State Department of Health for operation.

Facilities may be afforded for the training of additional colored workers, physicians and nurses.

The system may come to be regarded as a model by those interested in health problems in other places having a concentrated Negro population.

The result may be to reduce the present appalling tuberculosis mortality among the Negroes to approximately the normal level for the community.

It would appear that all organized effort to accomplish the latter objective should be considered, at present, to be also an experimental check on the current methods of anti-tuberculosis work of similar practicability and value to the so-called Framingham experiment, which is at present attracting so much attention.

The Negro as a Sanatorium Patient

By H. G. CARTER, Superintendent Piedmont Sanatorium, Burkeville, Va.

DURING the discussion of a paper of Dr. Landis of Philadelphia at the June meeting of the National Tuberculosis Association I was asked by a doctor in the audience how we managed to keep our patients long enough to effect a cure, it being his experience that the Negro was too shiftless and worthless to remain long enough to do anything with him.

I was reminded of this discussion at a recent meeting of the patients of Piedmont Sanatorium* called by leaders among the patients for the purpose of expressing their appreciation to our head nurse. I would that the critic above referred to and every other person present in the Sociological Section at New York could have been present at this meeting. Although Miss Hamilton, the head nurse, was leaving for a period of six months in order to complete a post graduate course, one would have thought it a final farewell on earth. All the old time "darkey lullabies," that they knew she loved so well, were sung for her. A male patient and a female patient each responded to the call of the "master of ceremonies" who was a "gas" patient in the sanatorium for two years. The appended address made by one of the women patients was particularly impressive and during the talk there was not a dry eye in the audience composed of every mployee and "out patient" in the sanatorium. attention than the Negroes.

This talk will give some idea of the appreciation felt by negro patients to those who are making an effort to restore them to health. The sentiment expressed in the talk is really felt and is not made merely for a pretty speech. I know of no field that offers a better opportunity to do good to mankind, and there are no people who more readily respond to sympathetic treatment and who are more appreciative of kind attention than the negroes.

The head nurse eulogized here entered into her course of training for the sole purpose of some day becoming a nurse at Piedmont. She was a patient in Catawba Sanatorium when Dr. B. L. Taliaferro of that institution told of the work about to be begun at Piedmont Sanatorium and the great opportunity it offered to those who wanted to serve mankind. She immediately entered training and a vacancy in the staff at Piedmont gave her her opportunity within six months after graduation. If one needs the expression of appreciation for a feeling of having been of some great use in this world surely she already has that satisfaction.

The following speech, quoted in full as given, is by Minnie A. Boone:

"Our Gratitude to Miss Hamilton"

Mistress of Ceremonies, Members of the Official Staff, Patients:

"I have been requested to express on the part of the women of this Institution, their sincere appreciation, and gratitude to Miss Grace A. Hamilton, for the tender, kind and untiring attention given them by her during their illness and stay here.

"A feeling of sadness comes over us when we think of her departure, and while I feel my inability to do justice to this occasion, yet I take great pleasure in representing the women.

"Miss Hamilton has, by her tenderness and kindness, endeared herself to every patient in Piedmont. She is always patient and affable, always wears a pleasant smile. Words fail to express our appreciation and gratitude to her for all that she has done for us: Our hearts are full.

"No day has been too hot, and no night has been too cold, for her to don her uniform and go quickly to the bedside of the patients and alleviate their suffering. We love to hear her footsteps but she moves among us so tenderly and softly that we do not often get a chance to hear them.

"While death seldom steals one from our midst; yet when he comes, although it may be during the dark lonely watches of the night when all are sleeping peacefully, she may be seen standing close beside him or her who is losing his hold on life; expressing words of consolation, making him comfortable; then when the last spark of life has flown, tenderly folding the hands upon the breast.

"In passing in and out of the wards, in walking about the grounds; in fact, everywhere about the place we hear complimentary remarks about Miss Hamilton. All the patients, from the oldest to the youngest, love to call her name; there is magic in it. Little Helen Stewart of only seven years, takes great pleasure in turning her eyes up to her and saying, 'Miss Hampton.' My little daughter, who has been extremely ill during the past ten months and who has been under her tender care, has learned to love her almost as well as she does me.

"To know Miss Hamilton is to love her; and while she goes from us to increase her store of knowledge, we wish for her the unbounded success—which we know awaits her. We wish for health and happiness. We will not say good-bye to her, but—'God bless you.'"

The Treatment of Pulmonary Tuberculosis*

By ROBERT A. PEERS, M.D., Medical Director, Colfax School for the Tuberculous

THE treatment of pulmonary tuberculosis is a very old topic, and perhaps, at first glance, it might seem almost impertinent for an author to attempt to present a subject so old and so frequently discussed. This may seem particularly true since there is no new and valuable remedy or no recently perfected method of treatment to bring before an audience. There is, however, one very good reason why at this time a careful résumé of the methods of treatment at our disposal might well be outlined and why some of these methods can, with profit, be more or less carefully considered, and that reason is the non-specificity of any measures or remedies at our command.

Tuberculosis of the lungs is a distinctly curable disease. (I am speaking now of patients in whom the disease has advanced to the stage where symptoms become evident and when physical signs can be elicited.) It is a curable disease, but the cure is long, the cost is great, and both the time and the cost element call for much patience, self-denial and self-discipline. The patient taking the cure is very much in the position of the man who, through misfortune, finds his business on the verge of bankruptcy and who, by the process of study, hard work and economy is slowly but gradually working toward solvency. He must be always on the job. For him there can be no holidays, no "resting on his oars"; no ventures into speculations or taking of chances—nothing but study, hard work and economy. Many a man in this position has tried the sure, quick cure of speculation in stocks, mines or oil in an endeavor to make a short, quick cut to solvency, and has ended in disaster. And so it is with the tuberculous patient. To attain a cure requires study of himself and his disease, persistency and patience in working out the details of his cure and economy of his physical resources. On every side of him there are persons offering him quick sure cures, the stock speculations of cultists, the mines and oil shares of medicines, at so much a bottle, with claims for their virtues as blatant and false as those of any wild-catter who ever wrote an advertisement for a mine or an oil well—and many a tuberculous patient has left the slow, steady, hard road to recovery for the quick sure cure, to his disaster. There are numerous such quick sure cures on the market to-day. Sometimes it seems as though a new one is placed upon the market every month. And so it seems to me that it is worth our while to sit down and write out those things which we know to-day from experience to be worth while things in the treatment of pulmonary tuberculosis.

If I were asked, "What is the most important thing in the treatment of tuberculosis?" I would answer unhesitatingly, "Proper medical supervision." I would divide those three words into two parts; first, proper; second, medical supervision. I use the word *proper* intentionally because, unfortunately, there is improper as well as proper medical supervision. There are still men who believe that seeing a patient at their offices where they administer medication or write prescriptions when the patient should really be in bed instead of consuming energy and time going to a doctor's office and waiting his turn is proper. There are still men who think that it is proper to give injections of tuberculin without having the patient keep an accurate record of his temperature and other symptoms. There are still men who think it is proper to treat tuberculosis, the disease, and give no thought to the patient and his troubles, the human element which should demand more study and attention than the disease. There are still men who believe that it is not necessary to put a tuberculous patient to bed unless the temperature goes to 100 degrees Fahrenheit. And, strange as it may seem, there are men even who have not yet learned that it is not proper to make a patient with active tuberculous disease exercise. And so I would lay great stress upon the word "proper." Providing, then, that we can put the word "proper" before the second part of the phrase, we can then state that medical supervision is the most important thing in the treatment of pulmonary tuberculosis.

What is the second great thing in treatment? The answer is proper environment, and, in this connection it may be said that just as much stress must be laid on the word proper when applied to environment as when used in speaking of medical supervision. What is a proper environment? A proper environment is any place where the patient can secure rest of mind and body in a building which provides efficient ventilating and heating systems, where the surroundings are pleasing to the eye and restful to the mind, and where there is congenial companionship, plenty of plain, well-cooked, nourishing food, and, if possible, a good climate. These are essential. Other things might be added, but those other things are in the nature of luxuries. This proper environment is most frequently found in sanatoriums. It is found occasionally in homes, but only exceptionally so. Let us consider these essential facts separately.

*Read before the Health Officers' Section of the League of California Municipalities, September 27, 28, 29, 30, 1920, Santa Monica.

First, there is rest of mind and body. This is the most important of all and the most difficult of all to secure in the home. Rest of mind is very difficult to obtain where the housewife is endeavoring to take the cure in her home, because to her are brought, in spite of the doctor's instructions—in spite even of the desire on the part of the household to cooperate—many of the cares of the household, many of the troubles of the children; in fact, all those things which would be decided without her if she were away, but which are never decided without her advice if she is at home. And when the father of the family is ill at home he carries, in spite of every effort to provide otherwise, part, at least, of the cares of his business. That these things are true is abundantly proven in the experience of all sanatorium workers by the marked and steady improvement of patients who have been doing only indifferently well at home, but who instantly commence to improve when taken to the sanatorium. Rest of the body is, likewise, difficult of attainment at home because the complete rest so necessary in active tuberculosis can only be obtained under strict discipline—a discipline that everything in the routine connected with the average home tends to destroy and which everything connected with the routine of a sanatorium tends to sustain. The home is constructed and managed for the convenience and care of well people, while the sanatorium is constructed and managed with the sole end in view of the convenience and care of the sick. Therein lies the reason for the improved results of sanatorium care as contrasted with home care.

The next item concerns efficient ventilating and heating systems. It is needless to dwell upon the value of fresh air in the treatment of tuberculosis. That is too well known to need proof or support. The sanatorium provides the facilities for fresh air by means of the sleeping-porch, and also proper heating systems, for the time is past when it is considered necessary to freeze a patient in order to supply him with plenty of fresh air. But the sanatorium does not furnish better living and sleeping-quarters than many homes, especially those built in the last two decades, so that it is quite possible in California, at least, to find many homes as well equipped in so far as ventilation and heating are concerned as is the average sanatorium.

Next comes the matter of surroundings pleasing to the eye and restful to the mind. All sanatoriums aim to provide such an environment, and among the middle classes and in the homes of the more well-to-do these factors are usually obtainable. Pleasant surroundings are very important for the tuberculous patient. He must take the cure over many months, sometimes years, and the effect of his environment has a very marked influence upon his morale.

Congenial companionship means much more than the two words would convey at first glance. It goes without saying that it is more easy to take the cure with pleasant people than when surrounded by a body of querulous pessimists. But the patient needs more than pleasant smiles to carry him through his months of cure with its exacerbations, its disappointments and its periods of gloom. And what he needs more than anything else he can get nowhere else than in the sanatorium, or the sanatorium town—the moral support which comes from seeing many other patients about him doing the same things as he is doing, undergoing the same discipline as sometimes irks him, suffering the same exacerbations or complications as come to him, and who, in spite of these things, are getting well. He sees patients who have had to stay in bed longer than he before attaining a normal temperature, and he sees hope where he would, otherwise, have seen nothing but despair. He sees patients who are suffering from the making of mistakes which he has been tempted to make and is warned by their experience. In fact, the truly proper environment is only attained when one takes the cure among his fellows who are similarly afflicted.

The next essential is plenty of plain, well cooked, nourishing food. And this is where the home shines in contrast to the sanatorium. Tuberculous patients as a rule do not need elaborate or formidable diet-lists. What they need is good food, good cooking and variety. These can be obtained more readily and cheaply in the average home under the supervision of an intelligent housewife or cook than in the most expensive institution. At the Colfax School for the Tuberculous we have tried to overcome this handicap by the aid of housekeeping cottages for patients who can bring some member of the family to come as an attendant and keep house. But in spite of this handicap the sanatorium can supply good food, good cooking and variety. The thing it lacks is the individual touch and the inability to cook in small quantities.

The last item mentioned as essential was a good climate. Personally, I believe that climate is of quite less importance than the other requisites just considered. I have always taught that it is not so important where you live as how you live while taking the cure. There is no doubt in my mind, however, that it is much easier to take the cure in some climates than in others. In California, for instance, the cure can be taken with much more comfort and patients can be persuaded to continue curing much longer in the foothills with the freedom from fogs of the coast and with the absence of the intense heat of the inland valleys. Experience shows, however, that patients under the proper conditions can get well in almost any climate. Therefore, for those who are able to leave home, I would advise that they choose the climate where they can take the cure with the least discomfort and where they can get the benefit of proper medical supervision and of the other essentials considered above.

Now let us discuss the problem from another angle. What, you may ask, do you do for the individual patient who comes to you for treatment? What do you consider the most important things for him to do or for you to do for him?

The two most important things for the patient are rest and time. Without bed rest and, later, modified rest, very few patients with active tuberculosis will recover and it is not sufficient to apply rest or modified rest over a short period but rather over many months and, sometimes, even years. The length of time is very important and will, of course, vary with the individual patient. Just how much rest and just how much time any individual patient will require is something that will have to be worked out separately for each patient. There is no instrument yet devised or no known method by which anyone can determine early in the disease the course which must be outlined for any patient. There are, however, certain general rules which may be laid down.

1. Every patient should be put to bed and kept in bed until the temperature becomes normal. In order to determine when the patient's temperature is normal, the patient should take his temperature at least five times per day and should leave the thermometer in the mouth from five to ten minutes each time, depending upon the hour when the temperature is taken and upon the temperature of the atmosphere. It is necessary to take more time in estimating bodily temperature in the morning than in the afternoon because the thermometer registers more slowly in the morning than in the afternoon. When the weather is cold the thermometer must be left in the mouth longer than when the weather is warm. Where rectal temperatures are taken, the latter rule is not so important. The point is to leave the thermometer long enough to insure a correct registration. There should be no such thing as a half minute or a minute thermometer in the daily régime of a tuberculous patient.

2. When a patient spends twenty-four hours per day in bed, his temperature should not be considered as normal until it is below 99 degrees fahrenheit at every temperature taking. This will keep many patients in bed for weeks, and some for months, but therein lies safety and without a specific remedy we cannot afford to take chances.

3. No patient should be allowed time up until the temperature has been continuously normal all day for from seven to ten consecutive days.

4. After the patient is allowed time up he should be instructed, at first, to sit in a reclining chair for not more than one hour per day. This means that he may put on a bathrobe and slippers only. The act of dressing is considered exercise. After a few days—the length of time varying with individual patients—he may be allowed two hours up. If he continues to run a normal temperature, this may be increased, later, to three hours. When a patient is allowed up three hours he may, if he desires and there is no contraindication, be allowed to dress, but dressing that consumes much time and effort should not be allowed.

5. When a patient is able to sit up for three hours without harmful reaction, it is usually safe to commence exercise. The plan we use is to commence with three minutes walking the first day and then increase the exercise one minute per day until a maximum of ten minutes is reached. He is then told to continue with ten minutes and is allowed four hours up. Later, the exercise is increased one minute per day to a maximum of twenty minutes and the time up is increased to five and, later, to six hours. The exercise and time up are again gradually increased, depending upon the condition of the patient and the daily record.

6. Each patient should be supplied with a record book in which are recorded daily his symptoms, his temperature, his strength, appetite, bowel movements, and other matters with which the physician should be acquainted. The record book we use at Colfax is the one published by the JOURNAL OF THE OUTDOOR LIFE Publishing Company. So firmly are we convinced of the absolute necessity of an accurate daily record that we should hesitate to attempt to treat tuberculous patients without some such book. It is very important that the patient should keep this record book himself, because by so doing he learns more about himself and his disease and its symptoms than he could possibly learn by any other method. And really, getting well from tuberculosis is, in its essence, learning to know one's own self and the limitations of that self. My conception of what the sanatorium does is this: It aims to secure an arrest of the patient's active process. After this it teaches him his physical and mental limitations, at the same time impressing him with the danger of exceeding those limitations and, also, in so doing acquaints him with the signs and symptoms which come when he exceeds his limitations. After the patient's disease becomes quiescent, after he has learned his limitations, and after he knows the symptoms which show that he is keeping within, or exceeding, those limitations, it is largely up to him as to whether or not he gets well. The thing which breaks patients down is largely what Krause has so aptly called "strain." Strain may be overplay, overwork, intercurrent disease, or anything which lowers the patient's resistance or allows the tubercle bacillus to break through the wall, either a cicatricial wall of fibrous tissue or the more intangible wall of circulating antibodies, a sort of humoral wall, and produce active tuberculous disease. After the patient leaves the sanatorium it is up to him to avoid "strain." The thing that enables him to do this is the education he receives at the sanatorium and in that education the keeping of a record book plays a very important part.

7. No patient with active tuberculous disease should attempt to go back to work before six months of rest and modified rest have been taken. This six months must be extended to eight, ten, twelve months, in many patients

(*Continued on page* 21)

The Physician and the Nurse*

By MARION G. CROWE, R.N., Superintendent Visiting Nurse Association, Portland, Ore.

Through the socialization of medicine and public health nursing there has advanced a new day for doctor and nurse. There has come to both of us a new vision of our place in the world. The doctor who contents himself with a diagnosis that spells expensive treatment and a prescription of absolute rest for the patient upon whose daily earnings the clothing, shelter and food of his family depends—the doctor who sees only the technical side of his profession without taking an active interest in the patient's human problems is but half fulfilling his obligations. The nurse who contents herself with carrying out the doctor's orders without putting into her work a recognition of the human claims beyond the sick room is but half fulfilling her obligations.

As nurses we have a wonderful opportunity to observe symptoms and conditions and report correctly to the doctor. That is our responsibility, for only the intimate contact such as nurses and patients have enables us to give a true interpretation of the patient's condition.

There is a time, to be sure, when technique and skill are prerequisite. This is in the operating room, where the nurse is the intelligent trained assistant, responding to the surgeon's requirements. Upon the skill with which she may supplement the surgeon's skill depends the life of the patient. But in the world outside the operating room the doctor and nurse must be more than skilled people in their profession. They must be visionists. In so far as we realize this and put it into practice are we meeting the realization of our vision of citizenship. We are fighting for the greatest battle, for a cleaner, more wholesome civic life.

May I quote from Dr. W. H. Allen, who says in his "Civics and Health":

"Practically every important sanitary advance in the past century has been fought at the outset by those whose life work should have made them see the need. Physicians attacked compulsory vaccination, medical inspection of school children, compulsory notification of communicable diseases. What is more significant of the physician's indifference to preventive hygiene is the fact that most of the sanitary movements that have revolutionized hygienic conditions owe their inception and success to laymen; for example, tenement house reform, child labor laws and anti-tuberculosis campaign, welfare work in factories, campaign for safety appliances, movement for national board of health, almshouse and insane asylum reform, schools for mothers and milk committees."

He quotes from Dr. Hermann M. Biggs, that in America the greatest need of the medical profession and of health administrations is training that will make physicians and inspectors use their knowledge of preventive hygiene for the removal of living and working conditions that cause preventable disease.

Dr. Allen's book was written in 1909. Just twelve years ago, and those of us who are in public-health work gasp when we look back and sense the advance which has been made since that time. More and more are both doctor and nurse getting away from prescription and nearer and nearer to nature's laws and the prescription of right living, fresh air, good food and all that means for a healthier body.

We are learning that it is not enough for the nurse to be the right hand of the doctor. She must be more than that, she must be his co-worker in every avenue of his profession, if we would live down Dr. Allen's arraignment. Our duty is not all done when we cure the patient; it is done only when we do our share towards curing the condition which made him our patient.

Of what value are our tuberculosis clinics if our patient goes back to improper living quarters? Of what value is the doctor's diagnosis if we cannot instill in our patient the treatment as prescribed by the doctor who made the diagnosis? Of what value is all this if we do not cry from the house tops the need of open-air pavilions and sanatoria, so that our patient can be cared for and not infect his whole family? Educational program is but half the battle, and we pay doubly in new infection because we do not accompany it with a generous relief program.

If the physician and nurse of one city gathered forces and marched on the bad living quarters of that city, should we have as many human wrecks as we have to-day? Whose business, if not ours, is the task of pointing out evils that make people sick?

Consider how many physicians and nurses to-day pay attention to physical effects upon the growing child who works all day in factories amidst noisy machinery and poorly ventilated workrooms. How many of us physicians and nurses trace back the anæmic conditions of the sixteen-year-old girl with aching back and weak eyes to the hours of standing in a factory or sitting at a machine?

We are told that more men and women are injured in factories in the United States in one year than were injured in the American forces overseas. Do you know that the safety appliances campaign was started not by the doctor who set the broken bones or from the nurses who helped the patient get well, but from the workers themselves?

* Read before the Northwestern Conference on Tuberculosis, Salt Lake City, September 22 to 24, 1921.

It took more years than it should have taken for Dr. R. Cabot's social service experiment in the Massachusetts Hospital to win recognition among his own profession. The cure of the disease is not a cure unless we cure the condition that produced it.

Are we doing all that can be done in venereal disease control? Are we as interested as we should be? I sat at a table at luncheon in Portland two weeks ago and listened to an eloquent appeal of a woman of my own town whose work overseas among the boys saved many a lad from a wrecked life. This worker has won recognition in being sent to camps in the country to talk to the boys. Is this worker a nurse? No, she is a school teacher.

The public health nurse is finding her task a big one with problems and possibilities. It is a sacred trust and urges us to go further. It is our duty to give to the world our knowledge of social conditions. We can point out the way to eradication of social ills through our technical training. We are giving in increasing numbers if our services are for the better civic life of our community. All this gives us an inspiration that cannot fail to make our work nobler, our civilization truer, and ourselves, the doctor and nurse, better citizens.

It is our task to lead in this work of curing society through the individual. It is our task to trace the effects of venereal disease to the blind children, in congenitally deformed bodies and minds. It is our task to throw off the silence of our profession and tell in plain language the result of venereal disease.

It is our task, that of the physician and the nurse, to see to it that the patient leaving the hospital shall be cared for as we know he should be until he can return to work, that this worry as to how he and his family can live while he is gaining his strength may not undo all the work we have so carefully done for him in the hospital.

It is the task of the physician and nurse to see that the community responsibility is awakened so that neither the patient nor his family suffers. I can imagine that you are at this moment recalling to your mind many cases that have come to your notice, cases where you have made known just such conditions and yet had no results. Let us not lose courage and say it's useless to try. We are chosen for a special work, life-giving and life-protecting, rich in human relationship and opportunities.

Let us not for one instant hesitate to fulfill our sacred trust!

On Duty

(A Tale Told to the Writer by a Policeman in Liberty, New York)

By S. A. MILLER

"DID you ever see a woman spit?"

I was taken aback, it never occurred to me to think of it, I never noticed it.

"Well, you did not, neither did I. But did you ever see a man who does not spit? Well, neither did I. To be frank, I myself used to chew tobacco and spit,—why, I could spit over a man's shoulder into a cuspidor, and if there wasn't such a thing as a cuspidor I didn't mind it either. Yes, I did spit, and I had to become a lunger before I learned to stop. And now it is my duty to see that others don't do it, and let me tell you, it is a d—n hard job. You will not believe it, but I am telling you it is hard, the hardest job of mine, and don't think for a moment that my task as a policeman is an easy one.

"True, the town is small, the population is a peaceful one. Since they closed up the saloons, there are no drunkards in the streets. Not that I am a prohibitionist, I myself like a good whiskey once in a while and a glass of beer in a hot summer day, the only trouble my health does not allow it. But as far as my duty as a policeman is concerned, I must admit it's much better when there are no saloons. As for gambling, there isn't very much of it either in this town, it is not the big city where you have to make raids, still one has to keep his eyes open, for there is always a gang near the cigar store, pool-room, or any other corner ready to shoot bones. Yes, a policeman must keep his eyes open.

"And, believe me, there is enough to look after. Take the traffic regulation, this alone is enough to keep one busy. Why, those reckless drivers, they drive the life out. The town is not big, but don't forget that in summer time it becomes five times as large, for it is a summer resort. Even in the winter there is plenty of work. Don't you think for one moment that the town is paying money for nothing.

"But, as I said, my hardest job is to see that men shall not spit. It may sound comical to you, but it is no joke, it is d—n hard. Signs everywhere: 'Don't spit, spitting spreads disease,' yet you'll see one spit right on the sidewalk, and, mind you, who does it, a sick one. Never mind how I know whether he is sick. I have been in the game long enough to know who is sick and who is not. Those fellows, I am telling you, are simply funny. You meet one and it is enough to look at him to see that he is sick. Yet when one asks him, he says he is not sick, it is merely a cold that he has had for the last three years. Cold "meeye." *I* am sick, and I say it openly, there is nothing to be ashamed of, I didn't steal it, did I? I know them well, and it was with one of those fellows that I had a hard job, but *I gave him a lesson,* he will remember me. He

will not spit any more, oh, no, not when I am around anyhow. I will tell you how it was.

"The town, you see, is small. I know everybody here, not only the town people, but even the farmers around. I know them and they all know me. The one I am talking about knew me well. I saw him time and again, noticed his "poker face." He greeted me, 'hello, cop,' in a friendly manner, though, to tell the truth, his face did not appeal to me, a 'poker face.' You can never be sure with a fellow who is owner of such a face. His whole appearance was not a promising one, yet I had nothing against him, he did not break any rules or regulations,—not that I know—and what do I care, he came to chase the cure, let him do it, and get well. Still I had him under observation, as they say in the hospitals. You know, you have to take care of the town, not that I care much for my position—don't think for a moment it is such an easy job, or that I care so much for money, the money of a policeman in such a small town—but, you know, the town is entrusted to my hands. I have to take care of it and I fulfill my duty. I did look after that chap.

"Once I was standing on the curb when I noticed that chap coming, and I'll be hanged on the first lamp-post if I myself did not see him expectorate right there on the sidewalk and walk away as if nothing done. I started after him, put my hand on his shoulder: 'Young man, can you read?'

"'Certainly.'

"'Well, then, will you please, and read over this here.' And I showed him a sign: 'Don't spit.'

"So he stares at me with his poker face and asks: 'Well, what is of it?'

"'You just read spitting is prohibited, yet you show no sign of prohibition.'

"'You didn't see me spit, did you?'

"'The nerve! I did see, just a moment ago. I can show you the spot.'

"'You're mistaking, my dear cop.'

"That man has more nerve than brains, I thought. The idea of denying when caught in the act, didn't I see him spit, why, a fly could get drowned there, and he says I am mistaking. I had a notion to take him right to the captain and compel him to pay fine, but I bethought myself, I'll let him go this time, the first offense, and then he is a sick man, a stranger in town, I'll let him go. So I say to him: 'I let you go this time, but if I catch you again then, by jove, you will pay fine, remember.'

"'That is if you catch me,' he said insolently, and stalked away. I *will* catch him, I said to myself; is my name not John J. Smith, if I don't nab that chap. And I did catch him, caught him in the act, all the evidence against him. It was this way.

"I was on my beat one morning. I didn't feel right, but, you know, duty, so I was standing club in hand, when I noticed that fellow coming along. If I would perceive a black cat darting across I would not have felt so bad as I felt when I saw him. I don't know why, but when I saw him I felt evil is coming. I turned not to see that poker face, yet I threw a side glance at him. Well, a policeman may sometime oversee something, but if he wants to see, he sees alright, he gets eyes in his back, and I saw it. And what do you think he did? He spat right into my direction and throws it *right on my shoe.* Did he stop to excuse himself? Like fun. He went away as if nothing happened. 'Well,' I said, 'now you will get what's coming to you.' I walk over to him, grab him by the arm and say: 'I got you now, you better take out a handkerchief or whatever you got in your pocket and wipe off my shoe, and be quick about it too, for—'

"He looked at me, at my club, but my look was also not a brotherly one and I wasn't in the mood of joking either. He saw it alright. So he takes out his handkerchief and wipes off my shoe, straightens out and wants to go away. He had no idea that he is dealing with John J. Smith. I had my satisfaction but do I keep the town in order just for my sake? I'm a policeman, yet when I have to spit—I do it very seldom, you know, it is only a habit—I take out my box. It's not for my sake only, it is for the sake of all, for the health of all, that I'm so strict. The town is a sick one. I don't mean to say there are no healthy ones, on the contrary, there are more healthy than sick ones. You know, one of the family gets sick so the whole family comes and settles here, yet it is what people call a sick town. There are even such fools who coming here are afraid to drink a glass of water. Well, those are fools.

It is more sanitary here than in any big city where you don't know who is who, but one has to take care of it. So, as I said, the chap wanted to go away. 'Well,' I say to him, you cannot go yet. We will have to see the captain first.'

"'What for?'

"A funny fellow, he wants to know what for. I suspected him, in trying to play the fool, so I took him by the arm and said: 'You come along with me, and then you will see what for.'

"We came to the captain—a nice man, a very nice man, and a sick man too. So I say to him: 'Captain, I want you to fine this man, and fine him with the highest penalty.'

"'Why, what offense did he commit?'

"'What offense! He spat right on my shoe, yessir, right on my shoe.'

"The captain looked at him, and by his looks I saw that he will not let him go, but that fellow didn't want to give in yet. He did it unintentionally, he forgot, this is the first time.

"The captain, you know, is a fine man, he may believe him, have pity on him, so I in-

(*Continued on page* 24)

Journal of the Outdoor Life

Official Organ of the
NATIONAL TUBERCULOSIS ASSOCIATION

PUBLISHED MONTHLY BY
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The aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

Tuberculosis Sanatoriums Near Large Cities*

THE time has passed, it is hoped, when the hapless consumptive faced exile to the desert and mountains. Nearly every state in the Union has found within its own borders a salubrious location for a tuberculosis sanatorium. With a better understanding of the relation of climate to the treatment of tuberculosis, we now know that it is not necessary to go more than a few hours' ride from any large city in the United States to find a suitable location for such a sanatorium. The U. S. Public Health Service, therefore, is urging states, cities and counties to construct sanatoriums, that is, instructive institutions, conveniently located to the populations to be served in order that patients may receive the solace of frequent visits from friends and relatives. The establishment of additional conveniently located sanatoriums, however, is only part of the institutional care for which further provision must be and is being made. Hand in hand with the increase in sanatoriums, general hospitals throughout the United States are setting aside rooms or wards for tuberculous patients. This measure the U. S. Public Health Service considers most important, as it not only would provide for the hospital care of large numbers of needy sufferers who are unsuitable for transfer to distant points or who are unwilling to be removed to remote hospitals, but also would do much to popularize treatment in the home climate, and to familiarize physi-

* Reprinted from the Journal American Medical Association, August 27, 1921.

cians with the early diagnosis and the effective treatment of the disease. Tuberculosis wards in general hospitals serve largely as diagnostic centers and clearing stations, and as shelters for the care of terminal cases. The plan of having all general hospitals accept patients suffering from tuberculosis was endorsed by the House of Delegates at the last session of the American Medical Association. Together with the provision of sanatorium facilities convenient to large centers of population, the proposals constitute a practical program on which the antituberculosis campaign may concentrate its present efforts to advantage.

"The Forward Look"

AT the beginning of the new year, one unconsciously takes account of stock and looks forward to the twelve months ahead. To those engaged in the fight against tuberculosis, whether it be a personal battle or an organized movement, the forward look is especially important.

To the patient, it is well to know whether his stock of perseverance, cheerfulness, backbone, and those other fighting qualities that make for victory is replenished and ample enough to last throughout the year. On the physical side, actual inventory of one's condition is to be desired. This applies, of course, not only to the patient, but to everyone else.

To the worker in the organized fight against tuberculosis, whether in the sanatorium, in the association office, in the nurse's uniform, or wherever, stock-taking and forward looking are highly essential. Is there a program prepared for the coming year and what is it? Too often, alas, workers start the year with no definite idea of what they are going to do. The failure of much tuberculosis work is due entirely to a lack of program or, in other words, to the inability to get a look ahead. A budget, a well framed program, an organization that will carry out the program—all of these things are essential.

Speaking of program, too, the forward look requires that the work of a tuberculosis association, at least, should be planned, not for twelve months, but for two, three and possibly five years ahead. The projection of such a program, furthermore, must not be on paper only. Paper programs have their value, but too often they are not worth the time that it takes to prepare them.

Tuberculosis is diminishing due to the concerted action of doctor, nurse, patient, secretary, volunteer and the general public. It will continue to diminish if we conserve the victories already won and look forward not only with enthusiasm but with intelligence and well directed leadership to the future.

Joy Flingers

A Department of Cheer

Edited by J. F. O'Neill

Hash à la Mode

By RAY C. SMITH,
Homestead, North Bergen, N. J.

IF you've thought of it at all, have you ever noticed that there is something about hash that recommends it to the ardent Joy Flinger? From this you must not infer that all Joy Flingers are confirmed hash-hounds. Perish the thought! But really, now that you are thinking about it, don't you see how hash must be eaten largely on Faith? To be sure. For example, no one but a crape-hanger would demand to know if that chopped up, peculiar-looking substance scattered promiscuously about the hash were a piece of retired fire hose or a section of auto tire. No Faith there. Crape-hanger must have all things, even hash, analyzed and the ingredients tabulated and card-indexed. Not so your bubbling Joy Flinger. He is Faith personified. He receives his hash with a cheerful mien and forthwith proceeds to wrap himself around it, utterly unmindful of the fact that the mysterious dish before him may be sprinkled freely with all manner of foreign and indigestible things.

And as with hash, so with Life, which is, after all, but a kind of hash dished up to us each day, to be disposed of according to our lights.

Now let's see how closely allied are the respective vocations of a Hash Slinger and a Joy Flinger. They have much in common. True, one slings, the other flings, but both *serve*, and do it with a wild and care-free abandon and an utter disregard for conventionalities that is amazing. The one consuming aim in the life of each is to serve; to put their stuff across. "They also serve who merely stand and wait," says William Jennings Bryan, or was it the landlord? Anyway, this wise crack would never win any cheers from a genuine Hash Slinger or a devoted Joy Flinger.

Your idea of the foregoing being now about as clear as hash itself, we must hasten to serve up that there Joy Fling before the allocated space is used up. C'mon, draw up close and incline a twitching ear thisward. What follows (not counting the brick-bats and other missiles) is just a supposition of how a couple of Joy Flingers might undertake to conduct a "Question Box" for the enlightenment of deserving "chasers," the analogy being that but for Life's hash there wouldn't be any Question Box. To wit; Frinstance; Ad Infinitum:

[NOTE.—This department is conducted for the purpose of providing a little relaxation for the conductors, and, incidentally, to disseminate knowledge. Anyone may ask anything at any time. We strive to please, and should we fail to give complete satisfaction, which is rare (the failures, not the satisfaction), be patient, withhold censure and bear with us (not on us), remembering meanwhile that even a stopped clock is right twice a day, as the feller says.]

Q. What is the turtle serum cure for T. B.?

A. The only thing about a turtle that is beneficial to T. B. is its speed. Go slow, brother; go slow.

Q. I am a little hoarse when I awaken in the mornings. What can I do for this?

A. Consult a veterinary.

Q. My thermometer registers 98.6 to 99 up to two minutes, and then jumps to 100 and sometimes 101 if left in mouth four minutes or longer. What does this mean?

A. That you should take it out at two minutes.

Q. I am a young man and have but one lung. Can I live this way,

A. Sure, provided you don't tell anybody.

Q. Is a pulmonary hemorrhage serious?

A. Hemorrhages are to be avoided whenever possible. Often a patient shows marked improvement after a hemorrhage, in which case it is a good thing. If your hemorrhage should be the other kind, you will be surprised how little the fact will worry you.

Q. My doctor has charged me five dollars for examination and X-ray. Is this excessive?

A. Yes. Excessive generosity on his part.

Q. Why are thermometers made of glass?

A. Simply a dirty trick played on us by thermometer manufacturers. They should be made of drawn steel.

Q. Is it better for a person with T. B. throat to whisper or to write out all conversation with pencil and pad?

A. We recommend the sign language as being less wearing and more economical.

Q. I am a young lady twenty years of age and have been an arrested case for one year. I have been working all this time and have a splendid position. What are my chances for getting married?

A. Where do you live?

Q. What occupation is best for a moderately advanced case? I am leaving the San. and must again take up work.

A. Your old position is always best, especially if you have been a deep-sea diver, steeplejack or trombone player. All the light outdoor jobs are now being held down by the army of the unemployed.

Q. I am troubled with the most horrible dreams, followed by headaches and dizziness. What causes this?

A. Do you buy it or make it yourself?

Q. Why cannot the X-ray penetrate bone?

A. Can anything else?

Q. What place has the warmest climate? My doctor advises a change.

A. Consult your doctor about it. He can do more to get you there than we can.

Q. I have been taking the cure for three years and doctor says I may soon return to work, an arrested case. What do you think?

A. Don't worry about it. He may be wrong after all.

Q. I am ordered to take hot baths once a week. I am not accustomed to this and fear the effects.

A. Don't be discouraged. One can get used to almost anything, even to bathing once a week.

Q. How can I stop my nails from curving over the ends of my fingers?

A. Manicuring has often been used with marked success.

Q. Is Cod Liver Oil good for a person with T. B.?

A. Yes, indeed. We find when used as a furniture polish it gives excellent results with very little rubbing.

Q. How can I determine if my lungs are affected? I am greatly worried.

A. Very easily. Simply join a good gymnasium and take up, preferably, long-distance running. If, after several months of strenuous training, nothing startling happens, you may be sure your fears are groundless.

Q. I am a married man and have been an arrested case for about six months. Do you think it safe for me to join a bowling club?

A. Consult your wife, then see your physician.

Q. Why does the doctor ask you to count only up to three when he examines?

A. Remember you are not taking an intelligence test. The counting is merely a device to keep you from asking a lot of darn fool questions while the doctor has his ears plugged.

Q. I am a young lady and have just been discharged from the San. Do you think I can dance?

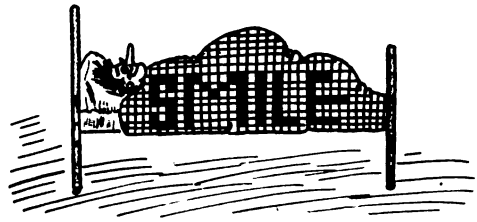
A. We have never seen you try.

The Joy Flinger's Psalm

By RAD REED, Sanatorium, Miss

A SMILE is my doctor, I shall not deny it. It maketh me to lie down in my comfy bed: it causeth me to look up to the twinkling stars.

It rejuvenateth my soul: it leadeth me in the paths of happiness for my lungs' sake.



Yea, though I walk through the valley of the shadows, I will fear no evil bug: for my grin is always with me; my smile and my laugh they comfort me.

It prepareth a reserve force in the presence of my weakness: it anointeth my life with the oil of joy; my cup of happiness runneth over.

Surely smiles and laughter shall follow me all the days of my life; and I will dwell in the land of joy forever.

Gems From the Sanmags

Not a Bad Attitude, at That

I eats when I can get it,
I sleeps most all the time,
And I don't give a dog-gone
If the sun don't never shine!

—*Pep.*

"Whispering Hope"

Doctor—"Say ninety-nine."
Patient—"Ninety-nine, ninety-nine.
Doctor—"Now, whisper."
Patient—"Whisper, whisper, whisper."

—*Badger Outlook.*

Back East It's Eyebrows

There is a girl in our san,
And she is wondrous wise;
She thinks she's literary
'Cause she pencils both her eyes.

—*The Stethoscope.*

Who Can Deny It?

After you have healed that gaping hole in your lung and the so-called hectic flush has faded from your moonlike face, the first thoughts that pierce the domed ivory are thoughts of sustenance.—*The Quiet Hour.*

Oh, Tush!

Life at Firland oft reminds us
With uncertainties we cope;
Just like stepping from the bathtub
On a juicy cake of soap. —*Pep.*

What If He Ate Eggs, Too!

I tell you this milk diet
Is a rose beset with thorns;
Instead of growing angel's wings,
I fear I'm growing horns.

When doctor dear examines me,
As I s'pose he does you,
He says to me, "Say ninety-nine!"
I sadly answer "Moo!"
—*Well Country Journal.*

O, Sweet Agony!

Dey's roonin me stummick wid raw eggs an milk.
On de square, Goilie, I'm finer dan silk.
Why I could eat rocks, Kid, an dat's no dream.
An Gee! how I longs for some berries an cream.

Say! I stick around in dis darned ole bed
Until I most tink I'll go nuts in me head.
Imagine me, Kid, wit nuttin else to do
'Cept layin in me crib tinkin always of you.
—*The Tea Bee.*

Mazuma Hath A Like Failing

Another thing that looks smaller going than coming is trouble.—*Ohio Optimist.*

Ave, Thrice Ave!

All hail to the Joy Flinger!
Let's welcome him with glee;
There's nothing else in all the san
That we would rather see
Than his face, so full of gladness
That it speaks with every smile
To make us forget sadness
And know that life's worth while.
All hail to the Joy Flingers!
Let's join the merry band,
And spread their cheerful gospel
Throughout Well Country Land.
—*Well Country Journal.*

Poor Old Kip

If you can hit your chair right on the minute
And linger there until the bell has rung;
If you'll forget the world and all that's in it
Without excepting those you rest among;
If you will eat three squares and then digest them
And chew the milk they slip to you between;
If you will fill your lungs while bugs infest them
With constant drafts of air that's fresh and clean;
If you will cram each day that's given to you
With twenty hours chock-full of curing done,
You'll get your health and everything that's due you,
And what is more—you'll be a freak, my son.
—*Mount McGregor Optimist.*

A Joy Fling at Vocational Possibilities for Cures

By CLARE WARD, White Haven, Pa.

INASMUCH as many cure chasers hesitate to follow their former vocations, why not establish themselves as LONG-RANGE T. B. SPECIALISTS?

Formulae

1. Advertise. As the medical profession does not advertise, it behooves us to ADVERTISE like the dickens.

2. Conduct all examinations over the telephone, thus saving your own strength and avoiding embarrassment among your fair patients. Arrangements should be made with the telephone company whereby fees can be forwarded through their finance department, similar to Western Union service.

3. In event that advertising does not produce results, pursue your clients by calling each number in the directory, starting at A and ending with the Z's.

4. In diagnosing a prospective patient, always remember that medical science tells us that ninety per cent. of the population at large is infected; hence, all you need to do is pronounce nine out of every ten tuberculous. The tenth individual you fail to find positive will be so happy he will indubitably laud your wisdom to the skies.

5. For the sake of effect ask your client to strip to the waist. Have him place the telephone transmitter to left chest, right chest, back, etc. Follow the usual procedure of "1-2-3" or "99" —inhale—exhale—cough. Always be sure to have him repeat these manœuvers several times before shifting the transmitter to a new area.

6. While conducting these examinations always speak vaguely of "bubbling rales," "broken wheezes," "cog-wheeled respiratory sounds," etc.

7. Ask him if he thinks his morning contribution of mucous to be "post-nasal catarrh." Whether he answers "Yes" or "No" mark him positive just the same. By closely following

the one-in-ten system you cannot go wrong, having made your diagnosis accurately by mathematics.

8. By this time your client will be firmly convinced of the veracity of your statements. Therefore while he is filling your ear with his personal history, gently inform him as to your fee which will appear on his next month's telephone bill. Advise him to enter the nearest sanatorium. A little of the rest cure won't hurt him, anyway.

9. In the case of obstreperous clients you have the initial advantage of distance. Merely have Central disconnect you if the erstwhile patient believes he is better fitted for the ten per cent. minority.

10. Long ere we are pronounced "Sure Cures" science will have added optical powers to the telephone; then Roentgen possibilities will give additional glamor to the scheme.

A $ Fling

A MERCENARY hay-hitter comes along with a suggestion that will fetch Mazuma to the pocket of the sanatorium patient with a nose for news hunting. While the Joy Flingers do not claim to be dispensers of money-making secrets there is a certain joy attached to the possession of money which few persons realize to as great an extent as the average cure pursuer.

This chap, confident of his ability to write good news stories of sanatorium happenings, approached the editor of the nearest newspaper with the suggestion and was given permission to try it out. His news, written in a style somewhat different from ordinary copy, became a feature of the paper, and after a while the editor told him they wouldn't care to get along without it. They paid him at a good rate.

Just recently another newspaper asked his services and now he writes breezy sanatorium news for both to the benefit of his exchequer.

The neighboring public is interested in what goes on at the san, and there should be many such opportunities at large awaiting ambitious patients whose conditions will allow them to carry on such work.

But It Didn't Collapse

Lenton J. Sculthorp, of Albuquerque, N. M., sends in the following quip with the suggestion that it be used as a Joy Fling for "gas patients":

"My daughter, three and a half years old, went to the filling station with a neighbor and upon returning came to my porch and said, 'Oh, Daddy, they gave the automobile gas in the back just like the doctor does to you!'"

Prize Goes Begging

The Joy Fling contest announced in November died a natural death. Only one entry arrived, and that two days late. But the heart of that contestant was in the proper location and what he wrote in his letter ought to make the whole caboodle of husky patients, who might have entered the contest but did not, hide their cheeks for blushes:

"I am still in bed and it was perhaps a mad thing for me to attempt, but after reading again your contest announcement in the November JOURNAL, I simply had to crawl out to-day and whip this Joy Fling outrage into shape."

With a fair proportion of literary cure chasers showing a like spirit, the editor might settle back comfortably and take some cure himself!

THE JOURNAL'S CHECKER Department

That Proofreader Again!

Editor JOURNAL:

In your Chess and Checker Department for October you have a problem from Lee's Guide, and it is a very good one with the exception that through error or otherwise you place the White King on No. 48.

This problem works out all right with the White King on No. 8 instead of No. 48.

If I am correct, the numbers on a checkerboard run only to 32. I got a considerable amount of practise in determining where the White King really should be.

Yours truly,
(An Old Bug) P. W. FARRELL.

The Treatment of Pulmonary Tuberculosis

(*Continued from page* 12)

and in some it may be even years. I know hat many patients get well and remain well who do not follow these rules, but I also know just as well that for every one who remains well after less than six months' rest here are a score who later break down. Time s an element in the cure whose importance an not be overestimated. Every specialist in uberculosis has seen many apparently hopeless tuberculous patients who have recovered fter years of painstaking training and careful iving and they have also seen many patients ventually succumb who gave great promise of recovery but who threw away their chances by the failure to be impressed with the necessity of a few months' longer rest. Unfortunately, in this connection, it must be mentioned that finances often play an important part. Many patients who should "cure" for eight months have money for only five and the one who should "cure" for a year can finance only eight months. This is a sad affair and is the point where the state or county should step in, and often does step in, and help carry the burden.

8. The patient must continue to take a modi-

fied cure for a long time after returning home. This is a very serious proposition. The average home, as intimated above, is not suited for "taking the cure." Not only is the average home not so suited but the family of the patient and their friends with whom the patient must take the cure very rarely realize, as does the patient, the necessity for the strict attention to details and the careful following out of the régime begun in the sanatorium. The family and friends see only a well-nourished healthy-looking person with a good appetite and digestion but without fever and free from cough and expectoration. They fail to see what is below these surface indications—the tubercle bacillus ready to take the offensive when once the patient oversteps his limitations. Many patients are unable to resist their own desires plus the urging of their friends and soôner or later again break down from overwork or overplay. What the patient really needs is the moral support of his associates. Too frequently he fails to secure it. It is only too true that many patients are killed by the mistaken kindness of their friends after leaving the institution. This situation which the patient is called upon to meet can be overcome in only one of two ways. Either the patient should bring some member of his family with him to act as an attendant, or nurse, so that the attendant learns the régime at the same time as the patient, or the patient must be so taught that he will have the courage to resist the importunities of friends to depart from the strict rules so necessary to secure a complete arrest. It is needless to say that the patient who spends the most time at the institution will, other things being equal, be the best fortified to contend with home conditions.

It has not been my intention to deal with medication, *per se*, nor with such operative procedures as pneumothorax, nor with the treatment of the complications and accidents which occur during the course of tuberculosis. It has rather been my desire to avoid details and to discuss in a general way those things which seem to me to be the really important things in the treatment of tuberculosis. We have no specific medication, although we have many medicines which are of value in the relief of symptoms. Tuberculin and vaccines are, at best, usually only aids to cure. Pneumothorax is suitable for certain cases only and then it is but an added factor in obtaining rest. With the aid of these measures we can help promote cures, but these alone, without the help of the fundamentals mentioned above, will not cure tuberculosis. Tuberculosis is a long, slow, obstinate disease which chooses to manifest itself differently in different individuals. To cure the patient one must treat the patient and not the disease. To be successful in treatment, the doctor must know people. He must know how to suit the environment and the régime to the individual and his temperament as well as he knows etiology, pathology, and diagnosis. Some day we may be able to cure patients by means of medicine. When that day comes, all that the physician will have to know will

THE JUNIOR HIGH LOSES THE TOURNAMENT BANNER TO GRADE 6B.

The National Tuberculosis Association announces the release of its latest motion picture, **"The Tournament of Youth,"** a story of Carelessness, Ignorance, and "stand-pat" Conservatism, won over to Enlightenment and Scientific Methods of Disease Prevention through the medium of the Modern Health Crusade.

A scarlet fever epidemic is raging in Marriott, and Dr. Martin, the health officer, finds that one of his greatest handicaps in combatting it is the belief that children *need* to have a certain number of "children's diseases." Characteristic of the careless, ignorant type of mother is Mrs. Burke, whose two small sons contract the disease. Then enters little Anne Baird, captain of the Crusade team of Grade 6B, and through her Dr. Martin learns of a way to help prevent epidemics of children's diseases in future. How he overcomes the opposition of the president of the school board, and how Mrs. Burke is converted to the new health movement, makes an exceptionally interesting propaganda film.

The price of **"The Tournament of Youth"** is 100, transportation extra. 1000 feet in length. A Circular will be sent on request.

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The National Tuberculosis Association

370 Seventh Avenue, New York

be how to make a diagnosis and then how to administer the remedy. To-day the hope lies in proper medical supervision and training, proper environment to keep the patient content through many months of cure and then he must have rest and time. It is our duty to study the patient and his temperament, teach him about his disease, the manner of its spread, the way to secure an arrest and then how to maintain that arrest. The percentage of cures will depend upon the acumen of the physician, the intelligence of the patient and his financial ability to take rest or modified rest over a sufficient length of time.

On Duty

(*Continued from page* 15)

terrupted him right there. 'Captain,' I says, 'don't you believe to what he says, I can testify that this is not the first time. I myself saw him doing it once, but I let him go, warning him not to do it again, but it seems it's very hard for him to remember unless you give him a lesson. He should not be able to forget so soon. This was what I said right in his face. The captain, naturally, is more apt to listen to me than to anyone else, and, besides, I told the truth.

"'If this is the case,' says the captain, 'you really deserve a punishment. You are old enough to know more than walk on the street and spit. The idea to spit on the shoe of a policeman while he is wearing it. Haven't you got a sputum box? Well, here, take one, and make good use of it.' He did give him a sputum box. 'And that you should remember what for the box is given to you, so you better pay for it $25.00, then I may be sure you will appreciate it and will not forget what it is for.'

"*Twenty-five dollars.* And he paid it too, cash on the spot, as my name is John J. Smith. I had pity on him, after all he is a sick man, and $25.00 may mean a whole lot to him, but you have to give him a lesson, and a costly one too, otherwise they will never learn. And this was a good lesson, believe me it was. He will not spit any more on the street. Oh, no, not when I'm around, anyhow, believe me he wouldn't."

"I see you are pretty close after those fellows."

"Well," said the policeman with proud modesty, "I fulfill my duty. So long."

Notes, News and Gleanings

Summary of Mortality Statistics, 1920

The annual report on mortality statistics soon to be issued by the Census Bureau shows that in 1920 the death rate for the death registration area of continental United States was 13.1 per 1,000 population as compared with 12.9 in 1919, which was the lowest rate recorded in any year since the registration area was established in 1900.

The death registration area in 1920 comprised 34 states, the District of Columbia and 16 registration cities in non-registration states, with a total estimated population on July 1st of 87,486,713 of 82.2 per cent of the estimated population of the United States.

The death rate from pneumonia increased from 123.5 per 100,000 in 1919 to 137.3 in 1920. Some of the other diseases for which the rate increased are chronic diseases of the heart, cancer, whooping cough and measles.

A market decrease is shown in the death rate from tuberculosis, which was 114.2 in 1920 as compared with 125.6 in 1919; also in the death rate from influenza, 71.0 in 1920 as against 98.8 the year before. The tuberculosis death rate is the lowest on record.

Tuberculosis Decreases in California

During 1920 there were 5,397 deaths from tuberculosis in California, making the tuberculosis death rate the lowest in the history of the State. The number of deaths from this disease per one hundred thousand population was 155.0; in 1906 the corresponding rate was 218.0, according to a recent bulletin of the California State Board of Health. Almost one-fourth of all deaths from tuberculosis last year were of persons who had resided in the State for less than five years and little more than ten per cent had lived in the State less than one year. During the past ten years there have been no marked fluctuations in the actual numbers of deaths occurring from tuberculosis each year, but the increase in population has tended to a decided lowering of the death rate.

National Health Legislation

Bi-weekly summaries of national legislation concerning public health have been issued by the National Health Council since last March, when Congress convened in special session. These summaries list and abstract all new health legislation and also

report progress on bills previously outlined.

The reports, which are mimeographed and average about twelve pages, were intended primarily for members of the Council. The demand for them from non-members has been so great, however, that arrangements have been made to distribute copies at 20 cents a piece. Since it is problematical how long the special session of Congress will last, no definite subscription price can be set for the term. With the opening of the regular session of Congress in December, it is hoped that these reports can be printed, instead of mimeographed, and a subscription price set. These legislative summaries are prepared in the Washington Office of the National Health Council, 411 Eighteenth Street, N. W., Washington, D. C., and can be secured by addressing that office. A limited supply of back numbers, covering the current session of Congress, is also available.

Public Health Institutes—1921-1922

Announcement has been made by the United States Public Health Service, that, beginning in November, a series of 24 institutes will be held in large cities throughout the country. Each institute is to cover a week, including lectures and demonstrations by health officials, well-known specialists and social welfare workers. The subjects to be considered cover a wide range and include child hygiene, syphilis, tuberculosis, industrial hygiene, mental hygiene, nutrition problems, public health administration and similar topics. Each subject is to be discussed by a recognized authority. No tuition fee will be charged.

County health officers, physicians, nurses and other health workers may secure further information in regard to the tentative schedule of dates, by writing to the U. S. Public Health Service, Washington, D. C.

Child Health Demonstration

Mansfield and Richland County, Ohio, has been selected by the National Child Health Council for a demonstration of what can be done in a typical American Community to increase the health of its children. The selection of Mansfield and Richland County was made after several months' study by the Council of some eighty communities, each of which hoped to secure the advantages of the demonstration. The work will extend over five years and will deal with children of all ages. It will be under direction of Dr. Walter H. Brown, formerly health officer of Bridgeport, Conn., and now with the Commission for the Prevention of Tuberculosis in France.

Member organizations of the National Child Health Council are the American Child Hygiene Association, American Red Cross, Child Health Organization, National Child Labor Commission, National Organization for Public Health Nursing and the National Tuberculosis Association.

Oklahoma State Public Health Conference

Two hundred twenty-five delegates representing fifty counties in the State attended the fouth annual State Public Health Conference held at Oklahoma City, October 11 and 12, 1921. The conference was held under the joint auspices of the Oklahoma Public Health Association and the State Department of Health and from the point of view of attendance as well as program it was the most successful in the history of the State.

Among the speakers who addressed the Conference were Dr. Charles J. Hatfield, Managing Director of the National Tuberculosis Association; John A. Lapp, editor Nation's Health; Miss Harriet L. Leete, Field Director of the American Child Hygiene Association, and Col. Hugh Scott, of the U. S. Public Health Service.

Other speakers included Dr. L. J. Moorman, Oklahoma City, Dr. A. R. Lewis who outlined the plans for operation of the State Tuberculosis Sanatoria, David Morey, Jr., of Dallas, Texas, Dr. J. W. Mountain, Joplin, Missouri, and R. E. Luhn, Oklahoma City.

In the annual report of Jules Schevitz, general secretary, submitted to the Conference at the opening session, the Eighth Legislature was severely criticized for its failure to pass the bill providing for a bureau of child hygiene in the state department of health, and for failure to provide adequate funds for tuberculosis sanatoria in the state. Reports were received from local health associations and county public health committees and part of a session was devoted to the 1921 Christmas Seal Sale.

A gratifying feature of the Conference was the excellent representation from Rotary, Lions, Kiwanis and Civitian Clubs and Chambers of Commerce from all sections of the State. Physicians, health officers and public health nurses were well represented. The annual banquet was addressed by Governor J. B. A. Robertson who took much pride in the splendid progress of the Oklahoma health campaign and urged the active participation of every fraternal, civic and social agency in this important movement.

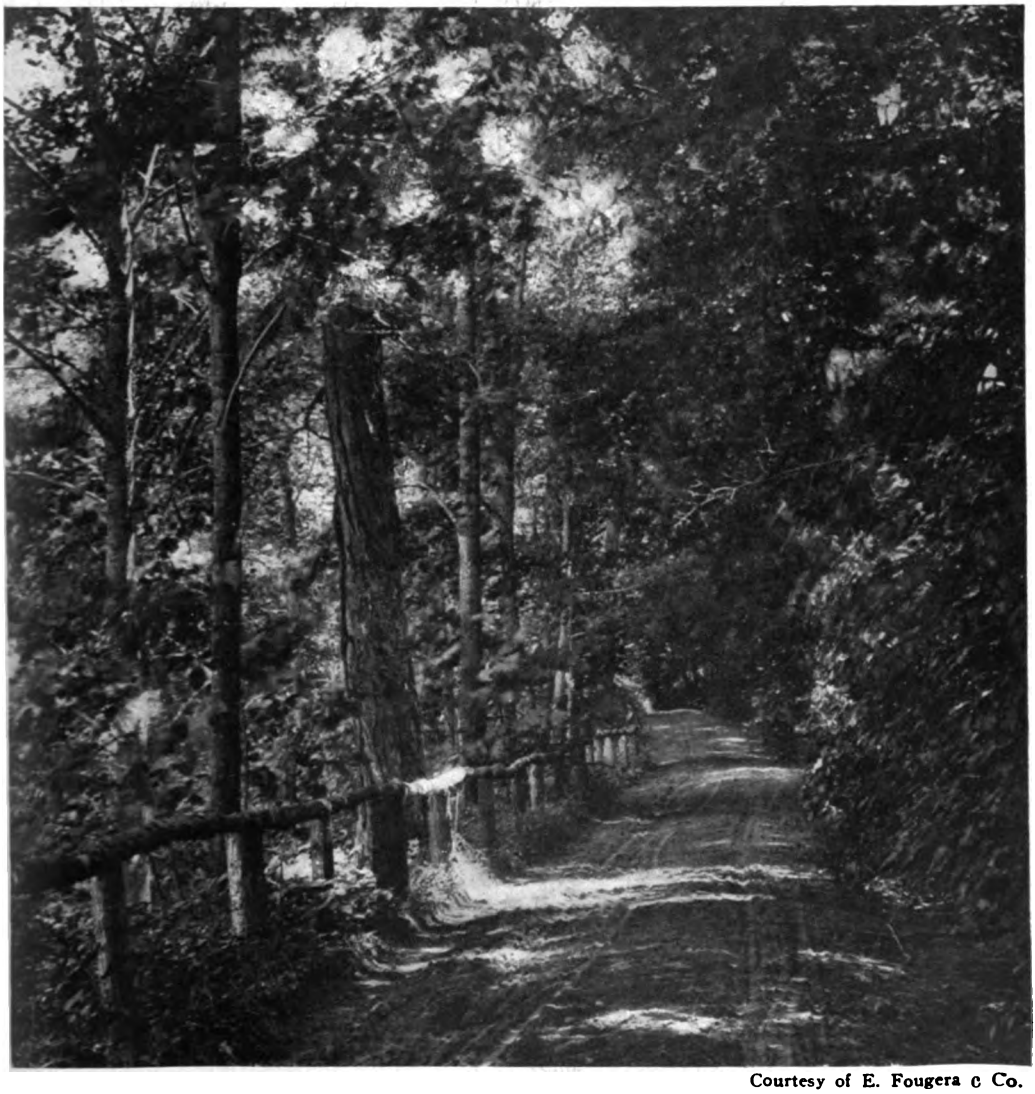
Personal Notes

Dr. Summer B. Remick has been appointed by Dr. Eugene R. Kelley, State Commissioner of Health of Massachusetts, as Director of the Division of Tuberculosis to succeed the late Dr. William J. Gallivan. Dr. Remick is at present Superintendent of the Sassaquin Hospital at New Bedford and is one of the prominent tuberculosis men of the State.

Dr. Patrick J. Hirst, Superintendent of the Herkimer County (N. Y.) Tuberculosis Sanatorium, and formerly Superintendent of a similar institution in Saratoga County, died suddenly on August 10, 1921.

l. XIX February, 1922 No. 2

JOURNAL of the OUTDOOR LIFE



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Published Monthly

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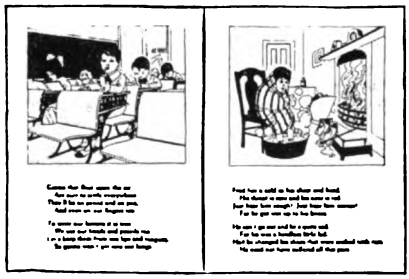
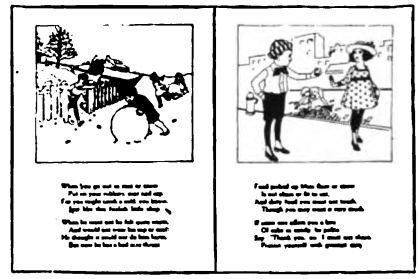
Are We Teaching Our Children to Be Invalids?

PERHAPS not, but how much attention do our schools give to teaching our children the rules of health, by which they may avoid tuberculosis and other preventable diseases?

The average schoolbook on arithmetic, geography or what not costs $1 or more. It improves the child mind, but does nothing to secure for him that greatest of all assets—Good Health.





For less than five cents a copy school children can be supplied with the HEALTH FIRST READER, which teaches not only the physical rules, but the psychology of health as well.

It is the recognized child's book on good health; endorsed by the National Tuberculosis Association and many of the foremost men and women in the anti-tuberculosis movement.

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OUTDOOR LIFE

Volume XIX FEBRUARY, 1922 No. 2

The Treatment of Tuberculosis

By ALLEN K. KRAUSE, M.D.

Editorial Note: *Dr. Krause will continue his Essays on Tuberculosis next month with a preliminary discussion of the Causes of Tuberculosis. The series will continue throughout 1922, but may not be run every month.*

REST remains the soverign remedy for tuberculosis. More direct and spectacular methods of treatment — inhalations, injections, drugs by mouth—come and go: the years since 1900 have spawned hundreds of them. Few have survived the momentary sensation of their announcement: none has earned even a vogue: all this despite the fact that none has been employed unless rest were also a part of the treatment. Rest alone has returned thousands of consumptives to productive life. Of those who, *while living an active life,* relied on drugs or vapors or "serums" or vaccines to fight their battle, few have made the journey back.

The lungs are the most frequent seat of human tuberculosis. In this type of disease the body is, as a rule, profoundly affected. Besides the cough, bleeding and sputum which are directly due to the local activities of the infection, the patient may exhibit the more general and constitutional symptoms of fever, loss of endurance, dyspepsia, loss of weight, excessive nervous irritability, etc. These latter manifestations are all expressions of a poisoning from which the body is suffering, because of noxious substances absorbed from the diseased (tuberculous) areas in the lungs. All sound treatment must aim to limit and confine the activities of these tuberculous foci and to reduce to zero or a minimum the absorption of harmful focal products.

Foci of disease represent morbid tissue changes set up in the lungs by living germs, so-called *tubercle bacilli.* In several ways and by several avenues and at many times, tubercle bacilli may be carried from foci, which they have brought about, to other parts of the lungs or body. Wherever conditions are favorable for their lodgment and continuance of life and multiplication, they will arouse the production of new foci of disease. *Progressive* tuberculosis, therefore, is an infection, characterized by successive eruptions of newer and newer areas of disease — tuberculous foci (tubercles)—which result from the translocation of living tubercle bacilli from point to point in the body.

Fortunately, not all tuberculosis is continuously progressive. Indeed, it is only the very rare cases which are. In most human beings, the infection proceeds to a certain degree and then stops; and, if it is not of a size or character to arouse symptoms of illness or disability, its possessor may never become aware of it. In many the infection pursues a halting course. Active for a while, it may enter into a period of quiescence, which may continue for weeks, months or even years. But at any time the stress of many outside influences and human experiences may "stir" quiesent foci into renewed activity; and at any point the activity may become sufficient to bring about symptoms of illness. When these symptoms occur, the person becomes then a patient who requires treatment.

If we possessed a chemical compound or a specific bacterial preparation (one comparable to the antitoxin for diphtheria), and with it could reach the foci of disease in such a way that it would destroy all tubercle bacilli contained therein, or neutralize and make impotent the harmful substances which poison the body, our treatment would be simple, and swift and certain in good results. An enormous amount of study and experimentation has, however, thus far completely failed to disclose such short cuts to healing. Our problem to-day is to convert a progressive disease process into one which is subsiding or non-progressive, and to prevent the spread of bacilli from already present foci into healthy tissues.

Experimental research, as well as elementary experience, teaches us that nothing so promotes the natural healing of a diseased or injured part as rest. Disagreeable and crippling though pain may be, it is a highly useful and defensive reaction on the part of the body;

and whenever it arises because of injury or disease, all animals instinctively respond to it by using the affected part as little as possible. Primitive man learned that the fixing of a broken limb by splinting promoted and hastened repair of the wound. We may lay it down as an axiom that uncontrolled movement of a diseased or injured part (if this is possible) will promote spread of the disease and delay recovery from the disability.

Wherever we have what we call more local tuberculosis, in places which are available for the treatment, we apply rest directly. We splint the carious spine or hip joint with rigid casts, and thus limit motion to a minimum. In cases of tuberculosis of the larynx we interdict speaking above a whisper, as a result of which the vocal cords and surrounding structures are put at relative rest.

When they present themselves for treatment, persons with lung tuberculosis may suffer from every conceivable degree of illness and disability. At one end of the scale we may encounter the patient whose only manifestation of illness is a consciousness that he has increasing difficulty in performing his customary work; at the other, patients who are profoundly ill, with high fever, great prostration and rapid wasting. Between these two extremes are legions of men and women, not ill enough to feel themselves fit for bed, who tire easily—too easily—have a little fever and elevated and irritable pulse, find their food without its old savor, gradually lose weight, and perhaps suffer from a slight cough which hangs on with unusual tenacity. Cough, blood-spitting, fatigue or feeling out of sorts, may first send these to the physician, who, if disability is due to tuberculosis, usually finds more features of illness than the patient complains of.

And now begins the struggle to restore the patient to old-time vigor, and *keep him there.* For *it is a struggle. Every person who has enough lung tuberculosis to cause symptoms is saddled with a serious affliction and enters upon a battle for his life.* The earlier he realizes this fact and, acting accordingly, does his part, the more quickly he establishes a wholly cooperative attitude with a competent physician, yielding himself to a discipline and re-education which will be always prolonged, and, to the rebellious and flabby-charactered, irksome: the more readily he adjusts himself to a life and environment which involve the non-indulgence of many former habits and appetites, and the release and freedom from many activities which, though pleasurable, entailed strain, the more likely it is that he will win the fight and not die of consumption—soon, or many years thereafter, and after many false convalescences and relapses.

From infection to first illness, lung tuberculosis is a slowly creeping and insidious thing; between the two incidents the interval is probably more often years than weeks or months. Healing may not be so sluggish, but to many it will seem interminable.

It is of the first importance to rid the patient of the constitutional symptoms of intoxication —of fever, fatigue, loss of appetite, etc. Exercise may whet the appetite, relieve the fatigue and tone up the system of the man without organic disease; but it has never done the same for the consumptive *when and so long as he has such symptoms.* We should no more exercise a tired and feverish consumptive than work a worn horse.

Experience will prove to anyone that, except in cases of acute disease and very ill patients, there is no appetizer for the consumptive like rest; there is no restorer of aching, tired limbs like rest; there is no fever reducer like rest. And why? Fever, tiredness and distaste for food are, we repeat, symptoms of intoxication. Intoxication results from the absorption of focal substances, and its intensity and degree are commensurable with the amount of such substances absorbed. The rate and capacity of this absorption depend upon the circulatory and respiratory activities of the body. These latter again vary directly with bodily activity, any increase of which (exercise) raises pulse and blood pressure and breathing depth and rate. Rest, bringing about a diminution of physiological demands, tends to reduce the amount of focal absorption and thus lessen intoxication. As intoxication goes, appetite comes back, fever falls and a sense of well-being sets in.

When this happens, the body functions more normally in every way. It is able to build up its depleted reserves and better combat the infection, thus assisting all the more in the healing of foci of disease, the extension of which is rendered less likely because of the comparative physiological inactivity of the affected part.

Well regulated life in the open and a well-balanced diet are yeoman aids to rest in the general treatment of tuberculosis. Moving, fresh air stimulates bodily functions and good nutrition improves them. Exposure to the wearing and damaging influences of weather and climate will likely prove disastrous, while forced stuffing with milk and eggs, beyond the demands of appetite and satisfactory gains in weight on more normal diet, delays rather than hastens cure.

Rest is really a potent medicine, to be prescribed and "dosed out" only according to the requirements of each individual case and with discretion, by physicians who understand its use. Discipline, regulation of life, is really the keynote to success in treatment—with rest always the basis. Consumption *can* be treated successfully anywhere—anywhere where freedom from bodily and mental stress is possible and prevails. But, since rest and discipline and the means for ensuring these are more readily obtainable in special institutions or health resorts than in an environment of anxious, over-critical and perhaps suffering relatives and friends, sanatorium treatment is vastly more satisfactory and effective for the great majority of patients.

Many drugs are valuable in combating and relieving particular symptoms of lung tuberculosis: none affect it fundamentally. The

various specific products of the bacillus—*tuberculins*—have done not a little good in one or two very special types of cases, *but only the thoroughly trained physician, experienced in their use, should administer them.* Sunlight and various other forms of radiation, in the hands of experts, are apparently exerting a very favorable influence in the more superficial types of tuberculosis; in lung tuberculosis they have yet to win their place. Yet drugs, tuberculins, and sunlight and irradiation would not show much effect if at the same time rest was not part of the treatment; that is, the patient allowed to go his own way, with life unregulated and activities unrestrained, would in most cases "crumble" nevertheless.

Treatment by artificial pneumothorax involves the direct application of rest to the diseased lung. The injection of an inert gas, like nitrogen, into the chest cavity, under higher pressure than the lung can expand against, brings about a condition which compresses the lung, and fixes it and makes the rhythmic movements of breathing impossible. It is a measure to employ in selected cases, in which less drastic treatment, like bodily rest, has failed to arrest the disease. It has saved many patients, and ameliorated and prolonged the lives of many more. First suggested by an Italian forty years ago, and vigorously advanced by an American almost twenty-five years ago, it has, during the last decade, gradually won recognition as the one effective weapon against advanced pulmonary tuberculosis, which the period since the discovery of the tubercle bacillus (1882) has disclosed.

When the treatment of lung tuberculosis is successful, the foci of disease either disappear or are replaced by scar tissue, or they are surrounded by thick, globular envelopes of scar tissue, which prevent the egress of bacilli remaining within and make impossible the absorption of focal materials. In most patients who recover, the latter event very likely occurs.

As long as living bacilli remain in the body, in such walled-off tubercles, the possibility remains that active disease can again flare up. And it is a lamentable fact that only too many who have recovered from one or more attacks of tuberculosis relapse.

Most break down again because they cannot withstand the strain of the life to which they return after treatment. They cannot or will not continue the regulated life that restored their health, and sooner or later they "crack."

This event is so common that the conscientious and wise practitioner insists upon the continuance of a modified treatment long after the patient has left his intimate care. He insists that the patient carry back to active life some of the maxims learned at the sanatorium; that he so regulate his affairs that he can always live with as little strain and fatigue as possible—for fatigue is his danger signal: that what is work for a normal man requires longer and more complete intervals of rest for him who was once a tuberculous patient; that overindulgence in any activity, while fatiguing to the healthy, may precipitate the relapse of a former tuberculous patient. Many patients, amenable to this advice, escape relapse. Most who are forgetful of it return —always a little worse off than before—to resume the "cure."

A man who has had active tuberculosis, who has recovered, and who returns to take his former place in society is "like a man with one leg trying to run a race with a man with two"; and he should arrange his life accordingly. A tremendous lot of the world's work has been done by men with tuberculosis or by those who were often on the brink of active disease—by Spinoza, John Locke, Chopin, Keats, Sterne, Raphael, Moliere, Canova, Schiller, Laennec, Emerson, Cecil Rhodes, and a host of others. But most of these had to do one of two things: either "put all their eggs in one basket" and live by rule to fairly mature and even old age, or seize the passing moment and burn themselves out in youth to leave imperishable monuments behind them.

Tuberculosis, Marriage and Maternity*

By MAURICE FISHBERG, M.D., New York

Rational eugenic teachings of recent years have had their effects on the large and growing portion of our population which exercises prudential foresight before entering matrimony, and avoids reckless procreation when there is any doubt as to the probable physical and mental qualities of the newborn. Owing to its wide prevalence, its chronic course extending over many years in a large proportion of cases, and its tendencies to remissions during which the patients feel comparatively well, tuberculosis very often creates problems of marriage and maternity. The unmarried ask whether they may marry; the married inquire whether they may have children with safety to themselves and to future generations.

A large number of physicians have answered these queries in the negative in practically all cases. Not only patients with active disease have thus been enjoined but also those who have had tuberculosis, but have more or less completely recovered, and some physicians have even gone so far as to prohibit, or at least to discourage, matrimony and parenthood of those whom they

* Read before the Sociological Section, seventeenth annual meeting of the National Tuberculosis Association, June 14 to 17, 1921.

considered "predisposed" to the disease.

The grounds for these prohibitions are not far to seek. Primarily, it has been argued, marriage endangers the healthy consort who is likely to contract the disease by intimate contact with the tuberculous spouse. Marriage is also said to be dangerous to patients, especially of the female sex. Moreover, on eugenic grounds, it has been alleged that inasmuch as tuberculosis, or a tendency to this disease, is transmitted by heredity, parenthood on the part of persons suffering from this disease is sure to increase the number of tuberculous individuals in generations to come.

Dangers to the Healthy Consort

It is a striking fact that admissions to sanatoria of both husband and wife, either simultaneously or consecutively, are exeedingly rare. Similarly, in the tuberculosis clinics in our large cities, in which an enormous number of married tuberculous patients are treated, it is very rare to find that both husband and wife are under treatment for active tuberculosis. This fact becomes more significant when we bear in mind that it is different with other transmissible diseases, like typhus, influenza, smallpox, syphilis, gonorrhea, etc.

Five years ago I made an investigation of this problem among 170 married couples in which one of the consorts was tuberculous. They lived under conditions favoring the transmission of the disease, most of them sharing the same room and bed. Still it was a remarkable fact that only in 5, or 2.9 per cent. of the cases, were both the husband and wife affected with "open" tuberculous disease. Considering its prevalence among the general population, we should expect that between 6 and 7 per cent. of husbands of tuberculous wives, or wives of tuberculous husbands, would be affected with the same disease. As it is, we find that the chance of "contracting" tuberculosis from a sick consort is about the same as contracting diabetes, cancer, or insanity.

There is another way of testing this problem. A very large number of well known and great men and women were tuberculous. I have looked up many of those who were married and in not a single case have I discovered that their consorts were also affected by the disease. Moreover, many of the physicians working in sanatoria all over the world have taken up this work because of the condition of their own lungs. Among those who are married it is exceedingly rare to find that their wives have contracted the disease.

These facts prove conclusively that the dangers to the unaffected consort are negligible, and should have no influence when a contemplated marriage between a tuberculous person and a healthy person is considered.

Dangers to the Tuberculous Consort

When discussing the effects of married life on a tuberculous individual we must differentiate between the various types of the disease which pass under the term pulmonary tuberculosis. On the one hand we have the acute fulminating cases, commonly known as hasty consumption, as well as the final acute stage of the disease which ushers out many of those who have suffered from any of the chronic forms for months or years. Patients with these forms of the disease are acutely sick, just as those who have pneumonia, typhoid, acute articular rheumatism, etc. The problem hardly ever arises in this class of cases, excepting in rare instances when, as a result of the euphoria characteristic of some tuberculous cases, they delude themselves into thinking that they must be united in matrimony, but as a rule, the consorts-to-be refuse to enter into the bargain. In the rare instances in which for either sentimental or emotional, or because of some valid material reasons, marriage is demanded, it may be permitted because obviously no harm can result to either of the contracting parties, or eugenically.

The problem of marriage confronts us mainly with patients who suffer from the chronic forms of tuberculosis. Among them we have those with active disease, requiring prolonged treatment; those in whom the disease is quiescent, and they are fairly well able to attend to some occupation, barring the incidental exacerbations of the process which disables them now and then for some time; and those in whom the disease has been arrested, and the only problem that arises is whether they are likely to suffer from a relapse. It has been maintained that married life often proves disastrous to all these, especially women. Indeed, it appears that persons with the stigma of tuberculosis often find it difficult to marry because of the alleged dangers to themselves, as well as to the progeny.

It is clear that those with arrested lesions should not be restrained in this regard. Whether a relapse will occur hardly depends on the matrimonial state. Moreover, celibacy by no means implies abstinence, and extramarital relationship usually involves excesses and additional risks. Inasmuch as there is no danger to the healthy consort, as we have seen above, it is decidedly unjust and in many cases anti-social to prohibit marriage to these patients.

With active chronic tuberculous disease things are different. Here considerable caution is to be exercised, especially in the case of women. Experience with many of this class has taught the writer that here again we must discriminate between those in whom the lesion is of the kind which we call "early," and those in whom it has been running a sluggishly chronic course for months

or years. In the former, a prognosis cannot be formulated with safety. They may recover within a few months, or the disease may run a progressive course; in the latter case the prognosis can be made with a reasonable degree of certainty. Inasmuch as in addition to the problems of clinical pathology there are, in the majority of cases, also involved material problems, our decision in this sort of cases must be guarded.

In early cases marriage should be postponed until an idea is gained as to the course pursued by the disease. If arrest is attained—and with proper treatment it is in a large proportion of cases—there is no reason for prohibiting marriage. If the course is progressive, the patient will not think of marriage, excepting in the rare instances mentioned above.

It is different with the exceedingly chronic cases which constitute the majority of patients who consult us in this regard. They have been sick for years, have had remissions in the disease which made them think that they had completely recovered, but sooner or later they have been disabused by exacerbations which proved conclusively that the lesion is still smouldering. The signs elicited by physical exploration of the chest also show clearly that they have active lesions; in many, cavities are found. But having adapted their organism to the toxic state, they feel more or less happy, though always apprehensive of an exacerbation of the disease.

I can see no reason why many of these patients should be prohibited from marrying, provided they find suitable partners who realize the tasks they undertake and are willing to face them. Our patient, who may have been despondent from lonesomeness which tuberculosis often bestows, may thus find a companion and Samaritan. The dependent young woman, unfit for continuous work for her support, but unwilling to spend the rest of her days in an institution, may thus find a man who takes good care of her, affords her frequent vacations, and thus keeps her in good condition for years despite the fact that physical signs show that she has a tuberculous lesion in her lungs. A tuberculous man, who has been shunned by members of his family and friends because of the exaggerated notions of infection which have been instilled into the general public during recent years, or who may not have been able to obtain lodgings in the city, may thus find a woman who is brave and willing to extend him a helping hand at a time when others treat him as an outcast.

We have seen that there is no danger of infection of the healthy consort. There has never been adduced uncontrovertible proof that marriage will harm the tuberculous consort. It is open to serious question whether unmarried tuberculous individuals live longer than those who are married. The scanty statistics on this subject that are available tend to show that the reverse is true. Moreover, as has already been maintained, we must never lose sight of the fact that celibacy by no means implies continence, and extramarital relationship involves excesses and additional risks to the tuberculous.

Another class of patients who often inquire as to their fitness for marriage are those whom some physicians have grouped under the term "predisposed." It may not be generally known, but it is a fact that we do not know who is predisposed to tuberculosis and who is not. I have practiced medicine for twenty-five years, and have cared for many thousands of patients, yet I can candidly state that I cannot say, after carefully examining a person and subjecting him or her to the most approved clinical tests, whether he will at any time develop tuberculous disease, or not.

We are at present beginning to realize that the signs which were considered as predisposing, such as the flat and narrow chest, scars indicating ancient glandular disease, feeble musculature, etc., are indications of actual but smouldering tuberculous disease, as a rule. Moreover, experience has taught that when developing active disease of the lungs these persons are usually in less danger of being carried off by a fulminating or hasty process than those who are physically unblemished. It is the muscular, athletic and the vigorous who goes fast when developing tuberculosis.

Maternity

Because many women date back the onset of their lung disease to pregnancy, labor and lactation, many physicians have prohibited maternity to all who have active tuberculous disease, as well as to those who had been cured of an attack several years back, and many have warned those whom they considered predisposed. Because of the alleged hereditary transmission of the disease, or of a tendency to it, the teaching has been that, even when maternity is eagerly sought, the chances in favor of raising a healthy child at the risk of the mother's life are very slight.

Careful observation among numerous pregnant tuberculous women has, however, shown that not in every case is the disease aggravated by maternity, and that not every child born to a tuberculous woman is doomed. Many women under my care disregarded my warnings, and passed through pregnancies, labor and lactation without any apparent harm to themselves, and raised healthy children. In some cases the lesions in the lungs were arrested or healed, but in others far advanced, cavitary lesions were found, yet they passed through these physiological processes unscathed. Moreover, it appeared that the ancient observation that some tuberculous women are distinctly benefited by marriage and maternity is sus-

tained very frequently. There is no doubt that many chlorotic girls, showing indefinite symptoms and signs of incipient tuberculous lesions, are often cured by marriage and pregnancy. The internal secretory activity of the female generative organs have an immense influence on the symptomatology and course of tuberculosis of the lungs. Observant clinicians have noted this relation in cases of tuberculosis in adolescent girls and in women during the menopause.

But we meet in books and monographs on tuberculosis statistics showing that while during pregnancy the lung lesion may be in abeyance, soon after labor the disease flares up and kills the patient sooner or later. These statistics have mostly been gathered by obstetricians, and concern patients with active and progressive disease. Some state that over 90 per cent. of tuberculous women are doomed by pregnancy and maternity; others put the percentage down as 75, still others, 60, 40, 20, and even as low as 10. The wide divergence of these proportions, running from 90 to 10 per cent., shows that they are either inaccurate, or based on clinical material which is not comparable.

Statistics published by internists, who have classified their clinical material, show that when the active and progressive cases are eliminated, and only the chronic cases are considered, irrespective of the so-called stages of the disease, pregnancy and maternity have little, hardly any, deleterious influence on the course of tuberculosis. Of fourteen tuberculous women under my care who had become pregnant during the past two years, twelve are now alive, and to my mind find themselves in the condition in which they would be expected to be had they not become pregnant. Likewise, Norris and Landis found that among the patients at the Phipps Institute 85 per cent. showed no change in their condition as a result of pregnancy, though 70 per cent. of the women were in the advanced stages of tuberculous disease. But when we deal with a large number of tuberculous patients, men or women, pregnant and sterile, about 20 per cent. will show aggravation of the disease during the course of two years which pregnancy and lactation involve.

Similar statistics have recently been published in Europe. Forssner calculated that 881 patients observed during the period 1907-1912 were not better off than 133 who became pregnant. Shäffer, in a study of the after-histories of married women discharged from a sanatorium, arrived at about the same conclusion. Of 425 patients thus observed during a period of 3 to 18 years, 136 had not become pregnant, and 189 had undergone from 1 to 7 pregnancies each since discharge. In 76.2 per cent. the women were still fit for ordinary or light work despite the fact that they had been pregnant and gave birth to and raised children. He found that only 18.4 per cent. had died of tuberculosis, but in only 13.7 per cent. was death due to progress of the disease in connection with pregnancy.

From these figures, and many others that could be cited, it appears that if we exclude acute and progressive cases of tuberculosis who should not marry or procreate because of the acute disease, the dangers of pregnancy for tuberculous women have been exaggerated. Even when repeatedly occurring, pregnancy and maternity is well borne by the vast majority of women suffering from the chronic forms of pulmonary tuberculosis. To be sure, from 20 to 25 per cent. may suffer an aggravation of the lung disease during the period of pregnancy and lactation. But this may be considered coincidental in most instances. A similar proportion of tuberculous patients suffer from exacerbations of the disease during a period of two years involving pregnancy and lactation.

Labor in Tuberculous Women

Obstetricians agree that labor is no more likely to be difficult and protracted than in non-tuberculous women. It is indeed often amazing to witness an emaciated woman give birth to an infant in record time. The loss of blood during this process may be considered negligible. It has been estimated that the amount of blood lost during normal labor is between 300 and 500 grams, and experience has shown that it is soon regenerated by extra labor of the hematopoietic organs. More blood is often lost during pulmonary hemorrhages and the patient soon regains it; after labor the blood-forming organs are even better prepared for the task.

The New-born Infant

Congenital tuberculosis is extremely rare, and may by left out of consideration when speaking of inheritance of this disease. In fact, experience has shown that physically the newborn infants are, on the average, about the same size and weight as those born to non-tuberculous mothers, Stillbirths also are no more frequent than among non-tuberculous women.

It appears that infection with tubercle is the more dangerous the younger the infant. Thus, when infected during the first month of life, the infant is in great danger, though not invariably doomed, as some writers have maintained. I have seen many infants raised by mothers with open tuberculous lesions. But on the whole, the mortality among these infants is extremely high owing to infection with tubercle, bottle feeding, etc. However, if removed from the mother immediately after birth and fed by a wet nurse, or with properly prepared milk, most of these infants may be, and are raised to healthy maturity. As was already stated, many are raised by their mothers. This is seen in any clinic caring for tuberculous patients. Numerous women, with open tuberculous

lesions, bring their children who are in excellent condition. With greater care than that which the poor can afford, with immediate isolation from the mother, the chances of survival of the infants born to tuberculous mothers appear to be not much less than of those who were borne by healthy mothers.

Conclusions

The indiscriminate prohibition of marriage and maternity to tuberculous patients is unjust. The vast majority bear these physiological processes without any ill effects. The danger of transmitting the disease to the healthy consort is insignificant. Tuberculosis in husband and wife, simultaneously or consecutively, is exceedingly rare.

Those with the chronic forms of tuberculosis may marry; tuberculous women with these forms of the disease, as well as those in whom the disease is quiescent or has been arrested, bear maternity with impunity. Some are even benefited. Statistical figures, carefully collected, show that in about 20 per cent. of cases an aggravation of the tuberculous disease occurs soon after pregnancy, but about the same percentage of tuberculous patients who do not become pregnant show exacerbations of the disease during two years which pregnancy and lactation involve. Labor is no different in tuberculous women than in the average non-tuberculous. The newborn infants are, on the average, of the same physical development as others. If removed from their mothers, their chances of survival are about the same as others of the same social class.

Marriage should be discouraged in patients with acute and progressive disease, just as it is in persons suffering from other acute diseases. In early cases marriage should be postponed until an idea is gained as to the course the disease tends to take.

The Spirit of the Double-Barred Cross*

A Pageant in Six Episodes

By HELENA V. WILLIAMS and ELIZABETH COLE, National Tuberculosis Association, New York

(Continued)

EPISODE II

KOCH OF GERMANY, 1843-1911

THE SPIRIT: Within the pleasant valley of Wollstein there dwelt, in humble circumstances, the kindly Dr. Koch. From early morn until late hours at night this seeker after Truth was busy at his home. From all about came trusting peasant folk to seek his help. When they had gone their ways, relieved, he'd hasten to his laboratory where, with eager zeal, he labored at experiments of skill. Most of all he wished to bring to light the puzzling sickness, phthisis.

One famous day in March in 1882, came to Berlin our unknown Dr. Koch to a gathering of most learned scientists. With him he brought the proof conclusive that he'd seen the cause of phthisis —that he'd grown outside the body virus which produced consumption—that he'd named his germs tubercle bacilli.

So a great discovery in bacteriology was made and the kindly country doctor startled all the world with this. He had torn away the veil that had so cunningly concealed, and revealed this germ of sickness as a thing that may be snatched at and put in control of man.

THE SPIRIT DISAPPEARS

EPISODE II, SCENE I—ROBERT KOCH, THE PEASANTS' DOCTOR

(It is late afternoon in the summer of 1876. *Robert Koch is in his office at his home in Wollstein, Germany. In the center of the room is an old-fashioned walnut desk, upon which are writing materials and a stethescope. Alongside the desk, is a comfortable armchair in which sits Dr. Koch. He is a stocky, square-shouldered man, of medium height, with a short, brown beard which succeeds in making him look older than his* 33 *years. Large, round spectacles soften the somewhat severe expression of his face. He is quiet, studious, good-hearted, and serious-minded. He wears a suit of rusty black, but it is neat and well-cared for.*

Standing before him is a German peasant with red face, red hands and awkward, apologetic manner. He wears the blouse, cap and boots of his class. He is stupid but very respectful. His clothing is dust-covered, and partly from embarrassment and partly because it is a hot day, he frequently mops his face with a large colored handkerchief.)

KOCH: I'm sorry, Joseph, but if your sheep have anthrax, they cannot be cured. There is no cure for the disease.

JOSEPH: (*Pleadingly.*) But, doctor—if I lose my animals, I lose everything. I will not be able to keep my land, nor to provide for my sick wife, nor for the children. Cannot something be done?

* The Pageant was presented at the seventeenth annual meeting of the National Tuberculosis Association in New York, June 15, 1921. Reprints of the entire play will be available for sale. Send orders to the Journal of The Outdoor Life.

They say in the district that you are a very great physician.

KOCH: My good man, it would give me no end of pleasure to help you, although—I am not exactly an animal doctor. But it is impossible. (*He leans forward, placing a firm hand on Joseph's arm.*) One of these days the reason for the spread of the anthrax bacillus will be discovered, and then science will have a basis on which to work for a cure.

JOSEPH: Bacillus? If you will excuse me, doctor—what might that be?

KOCH: Bacilli are small living organisms, too tiny for us to see without a microscope. There are good bacilli and bad ones. They enter the body and rapidly multiply there, and the bad ones cause various diseases in human beings and in animals.

JOSEPH: Gott im Himmel! Is it possible that my sheep and perhaps my Meta, too, carry such animals around with them?

(*The room has become dark. Mrs. Koch enters carrying a lighted student lamp which she places upon the desk. She is about 30 years old, blonde, pretty, intelligent. She is neatly dressed in a costume of the period, a typical example of the middle-class housefrau, fond of her husband, looking after his comforts, but with no comprehension of his scientific work.*)

KOCH: That would be quite possible. But one of the greatest tasks before medical science to-day is to find them, and to discover how they get into the body. (*He strikes the table to emphasize his words.*) If we knew that, Joseph, I could help you to-day.

JOSEPH: (*Hopelessly.*) I understand, doctor. (*He goes toward the door.*) Good-day, doctor.

KOCH: Good-day. (*Turning toward the door.*) Just a moment, Joseph. Did you say something about your wife being sick? What seems to be the trouble with her?

JOSEPH: Ach, Gott, how could I forget about that? She says she is not sick at all, but she coughs a good deal and she does not like to work any more, although, when I married her, she was strong, and healthy, and nothing was too much for her. So I think she must be sick. (*Proudly.*) My Meta is not lazy. (*Eagerly.*) Perhaps, doctor, you would come and take a look at her—it may be those animals you told me about.

KOCH: Hm! Certainly, Joseph, I will see her to-morrow. (*He goes to his desk and makes a note on his pad.*) Good-day, Joseph.

JOSEPH: Thank you, doctor. Good-day, doctor. (*He goes.*)

MRS. KOCH: (*After the door has closed behind Joseph.*) Robert, you have upset that poor fellow's head completely. Why, that was a veritable lecture on bacteriology!

KOCH: My dear, I cannot hold the news from you any longer. (*Enthusiastically.*) I have discovered the spores of the anthrax bacillus! I am certain of it! I am going to make a demonstration before Cohn, of Brussels, within a few days, and show him how healthy animals that have been inoculated with blood that is entirely free from anthrax bacilli are later found to have the germs in their blood.

MRS. KOCH: (*Fondly.*) Robert, you are a genius. But I always knew it, otherwise I never would have married a man who spent most of his spare time dissecting harmless animals. I am certain that some day you will do something stupendous for your profession and for the world!

KOCH: (*Laughing.*) Tut-tut, child, tut-tut!

MRS. KOCH: But, Robert, you are working too hard. Busy with your practice all day, and study and experiment half the night. (*Amused.*) You know, the neighbors are very curious to know what it is that you do behind that curtain. They cannot understand why you are so secretive about your work. Really, they are very amusing.

KOCH: When the time comes for me to make my work known to the world, I will do so. But I must first convince my colleagues that I am right. Just think, child, what it would mean if medical science were acquainted with the germs of such dreaded diseases as typhus, tuberculosis, malaria, and the black plague. If it could be proved that they are infectious and preventable! Did you hear that poor fellow Joseph tell me about his wife's illness? That sounded like the symptoms of tuberculosis. Now, to find the tubercle bacillus—tubercle bacillus, I like the sound of that—that indeed would be a contribution to science!

MRS. KOCH: (*Laughing.*) Robert, you always become so enthusiastic over your germs. Now, I will go in and finish the supper. It will be ready in a few minutes.

KOCH: Good, then I will have time to take another look at my test tubes, before you are ready. (*His wife kisses him on the cheek and goes.*)

(*Left alone, Koch takes the lamp and goes toward his laboratory. A faint shimmer of light is seen through the gauze curtain. Presently, a stealthily advancing figure passes behind the curtain, then another and another, until seven have appeared. The figures are*

tall, sinister, and they wear long cloaks. Their faces are veiled. They are the Diseases from which Humanity is suffering her greatest loss—Typhus, Tuberculosis, Measles, Malaria, Pneumonia, Yellow Fever, Scarlet Fever and the Black Plague. Koch snatches at them, attempting to unveil their features. They elude him. Last of all comes Tuberculosis, a tall masculine figure in white cloak and veil. He catches this and holds it fast. He snatches the veil from its face, revealing a hideous red countenance with two fine white irregular lines running across the forehead and from mouth to ears.)

KOCH: The Tubercle Bacillus!

(With a lithe movement the germ slips from his grasp, covers its face and disappears in the darkness. Koch stares after it a moment in silence. Then exultantly he exclaims:) Nunquam otiosus! I will not rest until I have captured you for all time!

CURTAIN

EPISODE II, SCENE II—ROBERT KOCH REVEALS THE TUBERCLE BACILLUS

(It is the evening of March 24, 1882, at the since famous meeting of the Physiological Society of Berlin. Koch has been demonstrating his discovery of the tubercle bacillus. A microscope, test tubes, as well as accessories for staining the bacillus, are on a table. There is also a glass and pitcher of water. About the table are seated a number of famous men. Among them Gaffky, Loeffler, and the skeptical Virchow. They are listening with tense, eager, rapt expressions to the revealing of this epoch-making discovery. Koch is at the end of his two-hour speech and is almost exhausted.)

(As he speaks, the figure of Tuberculosis is seen behind the curtain for the flash of a second, bared of its cloak and veil, writhing, clutching at Koch, but overcome.)

KOCH: So much the more stress would I, therefore, lay on prophylactic measures which should be directed partly towards the direct destruction of the tubercle bacilli by suitable methods of disinfection, partly to the preservation of healthy persons from contact with tubercle bacilli in all cases in which the parasites cannot be certainly destroyed.

(Koch has finished. No one stirs, not a question is asked. Even the cynical Virchow sits still, looking at Koch as if in a trance.)

KOCH: *(Pours a glass of water from the pitcher and drinks it.)* I thank you, gentlemen, for—

(At this everyone jumps up at once to congratulate him. Loeffler and Gaffky are among the first to reach him. Both grasp his hands. Unstinted admiration is the only feeling which everyone has for Koch at this moment.)

GAFFKY: I do not know when I have felt a greater thrill. To think that you have done this thing successfully. I congratulate you from the bottom of my heart.

LOEFFLER: Koch, your name will go down in history as one of the greatest scientists of all time. The best that the rest of us can hope for, is that we may be mentioned as your followers.

VIRCHOW: *(Coming forward, grudgingly.)* There is nothing to say. You have convinced me.

(Koch's friends laugh, surrounding him again.)

GAFFKY: This, friends, is an occasion for celebration! Let us go where we can appropriately toast the child of fortune!

(They carry him off with them.)

CURTAIN

EPISODE III

TRUDEAU OF SARANAC, 1848-1915

THE SPIRIT: Now came my spirit's inspiration to your fair United States. Among gay and carefree friends there dwelt a man, young and beloved. Throughout his early years came naught but joyous knowledge gained with wealth in pleasant places.

But the foe, Tuberculosis, that lies hidden everywhere, sprang out and killed his brother who was young, not meant to die. And Trudeau had cared for him not knowing that the foe was full of poisonous infection. He swore a mighty oath that he would have a just revenge. So he joined the band of searchers, joined my mighty world Crusade, and he fought the foe for many years under handicaps most blinding. But he came out through the forest, brought his enemy to light where the sunshine burns so brightly and the winds are free and clean.

And he struggled in the open with the world all cheering on and he found Tuberculosis is a foe that can be conquered.

In the healthy Adirondacks, where kind Nature ever smiles, many ill, discouraged sufferers came for help in conquering phthisis. Here clean breezes cool, caressed the bodies, weary, worn with weakness, and brought comfort to the ones with aching backs and tired hearts. Here a fame for healing grew and spread to all the world and the name, Trudeau of Saranac, came to be a name forever blessed.

THE SPIRIT DISAPPEARS

EPISODE III. SCENE I—TRUDEAU'S PLEASANT YOUTH

(The scene is W. P. Douglas' country place at Little Neck, L. I., in the summer of 1870. *A typically mid-Victorian room reflects in its furnishings the wealth and culture of its owner. A piano is set at an angle in one corner of the room. A gay party is in progress, and many young people, members of New York and Long Island society, are present. Mr. Douglas and Lottie Beare, Trudeau's fiancée, are seated near the center of the stage. Mr. Douglas is about sixty years of age, with gray hair, moustache and sideburns. A young singer is entertaining the company with "Coming Through the Rye.")*

(The applause after the song is cut short by a commotion in the hall. The door to the right is thrown open, and Lou Livingston bursts into the room, dragging Trudeau with him, the latter making a violent effort to break away from his captor. Trudeau and Lou Livingston are about the same age, 22 years. The cause of the former's confusion at this moment is the fact that he is dressed only in a rowing shirt, blazer and a pair of trousers. His face is flushed, he is out of breath, over-heated, and his hair is in complete disorder. Young Trudeau has a high forehead, dark hair, moustache and sideburns. His French ancestry reveals itself in his rather tense, nervous temperament. He has the courtly manners of the gentleman of the period.)

LOU LIVINGSTON: The guest of honor has arrived! (*Ironically.*) He saw a yacht on his way over which he could not pass without closer inspection. So he kept us waiting. I ask you, ladies and gentlemen, isn't he incorrigible?

TRUDEAU: She was such a beautiful boat. (*He murmurs confused apologies to his friends and somewhat shamefacedly greets Miss Beare.*) I beg you to forgive me. If you will excuse me, I will run up to change my clothes and be down again in a moment. (*He rushes from the room.*)

LOU LIVINGSTON: (*Calling after him.*) This should be a lesson to you, but, of course, no one really expects you to profit by it. Here are your clothes, Ed. (*Trudeau discovers that he has forgotten his bag and goes back to Livingston for it, amid the laughter of the company. Livingston then joins a group at the right.*)

MISS BEARE: (*To Mr. Douglas.*) You know, Ed told me that one of the men at his club wanted to bet $500 that Ed will never complete his medical course, and no one would take the bet. Isn't that amusing? To be sure, this is the first real work Ed has ever done, but I am sure he will do it with his usual thoroughness and whole-heartedness.

MR. DOUGLAS: I'm beginning to think so myself, Lottie. Ed is possessed of three priceless gifts, optimism, energy and magnetism. And, besides, my dear, he displayed both excellent judgment and enviable good taste when he fell in love with you.

LOU LIVINGSTON: (*Who has joined them.*) But he made his everlasting good fortune when he won her. (*Addressing the guests.*) Speaking of love, perhaps Miss Morton will be good enough to sing another ballad for us. It would be a great pleasure to all of us to hear her, and her song might help to hasten our tardy fellow-guest. (*A chorus of laughter, "yes," "please," and so on greets this suggestion. Miss Morton is led to the piano by Livingston. She sings an old-time love song. During the applause which follows the song, Trudeau re-enters the room, dressed for dinner. Miss Beare crosses over to him and the two converse, apart from the rest.*)

TRUDEAU: (*Eagerly.*) Lottie, I have a splendid bit of news. There is a small hospital on the corner of Tenth Street and Avenue A, to be opened on January 1st. The positions of house physician and senior and junior assistants are open for competitive examination, and I am going to try for them. If I get the position of house physician or senior assistant, I will serve, as the first will be for six months and the second for one year only. But if I get the junior assistant's place, which will keep me eighteen months, I will resign it and we will get married without my having hospital experience. Lottie, what do you say? (*During this speech Trudeau has coughed several times.*)

MISS BEARE: I think it would be better to wait, Ed. By the way, have you done anything about that cough?

TRUDEAU: No, I have not. It really does not amount to anything. Lottie—I cannot wait. Please say yes. (*The music of an old-time waltz is heard. The guests take partners and Lottie and Trudeau start to dance.*)

TRUDEAU: (*Persistently.*) It is yes, isn't it, dear? (*Lottie nods, almost imperceptibly. Trudeau's arm tightens about her waist. His happiness is complete.*)

CURTAIN

EPISODE III. SCENE II—TRUDEAU, THE HUNTER

(In the Adirondack woods. It is a late afternoon in the fall of 1882. *Trudeau is seated on a log. Paul Smith and Fitz Greene Hallock are lying on the grass beside him. In front of them is a dead buck. Trudeau is dressed in the hunting costume of the period. Paul Smith has a tall, muscular figure, the healthy look of the woodsman. He is shrewd, jovial.*

with an incisive sense of humor. He wears a suit of old clothes and a shapeless old hat. Fitz Greene Hallock is stocky, of medium height, with a round, ruddy face, a thick, drooping moustache, and heavy eyebrows. He wears an old coat, loose, baggy trousers, heavy shoes, a slouch hat, a soft shirt with attached collar, and a four-in-hand tie. A gold watch-chain dangles from his vest pocket.)

PAUL SMITH: Well, doctor, you've had another lucky day—as fine a buck as I ever had the luck to see.

TRUDEAU: Isn't he a beauty? Some day, I suppose I shall have to give up hunting, but I can hardly bear to think of it. Do you know, I sometimes believe these woods have magic in them. No matter where I have wandered in my search for health, I have always felt that in the Adirondacks alone could I become well again and resume life's responsibilities. And it has been so. I came up here because I preferred to die in the woods; but your pines, Paul, have the power of healing, and the music of my hounds on the scent fill me with fresh life and vigor.

PAUL SMITH: Doctor, do you remember the day Mr. Livingston brought you up to my place in the old stage wagon? He'd put a board between the seats with a mattress and a couple of pillows, and you were flat on your back all the way from Ausable Falls. Remember, Fred Martin picked you up out of that wagon like you'd been a kid, and carried you up the stairs, two steps at a time, and when he put you down, he said, "Why, doctor, you don't weigh any more than a dried lamb skin?"

FITZ HALLOCK: And now, here is the doctor with patients enough of his own to keep him going night and day, and shooting bucks in between times. And so as not to waste any time, he makes bugs, and then injects them into guinea pigs.

TRUDEAU: (*Laughing.*) Those are tuberculosis germs, Fitz. I am hoping that I can prove the infectiousness of tuberculosis to my own satisfaction. If doctors had known more about tuberculosis when I, myself, was first taken sick, I could have changed my mode of life in time and become perfectly well.

FITZ HALLOCK: Do you know what the doctor was saying to me on the way up? He is thinking of ruining a perfectly good fox runway and building a hospital for T. B. patients on it.

PAUL SMITH: Well, the doctor knows—if he says spoil a runway for a hospital, I say go ahead. (*Thoughtfully.*) Although it does seem like a dirty shame.

TRUDEAU: (*Dreamily.*) I have a vision of that hill dotted with cottages, where poor consumptives may get the best scientific treatment at small cost. My sanitarium would be for early cases, for I believe it is in the incipient stage that there is the greatest possibility of a cure. (*Enthusiastically.*) I want the men and women who are crowded in city tenements, and who cannot afford expensive treatment, to experience the magic of the Adirondacks, to feel the freedom from material cares which close contact with nature always gives one.

PAUL SMITH: Then you'll probably get your sanitarium, doctor. You always hit everything you shoot at.

TRUDEAU: You old frauds, you know perfectly well you agree with me that it is an aim worth while.

FITZ HALLOCK: (*Resignedly.*) I guess you know best, doctor, but I wish you'd pick another hill. (*Affectedly.*) Why, that runaway can't be beat in the whole of the Adirondacks!

CURTAIN

EPISODE III. SCENE III—TRUDEAU, THE BELOVED

(*Trudeau's 60th birthday, October 5, 1908, is being celebrated in a hotel in the Adirondacks. Dr. Trudeau is seated at the head of the table. The dinner is being given him by his associates, among them Dr. Lawrason Brown, who are grouped about him. As the curtain rises, all are singing, "For he's a jolly good fellow." They end the song and drink a toast to their guest.*)

TOGETHER: To the pioneer!

DR. BROWN: Doctor, if you had the opportunity to live your life over again, would you do it?

TRUDEAU: I doubt it. But moments like this one, I should be only too glad to live and re-live again and again. However, no man could have had more and truer friends and co-workers than I. Had it not been for all of you, my vision of the Adirondack Cottage Sanitarium could never have been realized. I did not dream then that dozens of model buildings would dot the site of the old fox runway. (*He chuckles.*) I imagine even Fitz Hallock has become reconciled to the change by this time.

DR. BROWN: Doctor, do you remember who were your first patients in the original cottage?

TRUDEAU: Perfectly. They were two factory girls from New York. In those days there were no electric lights, no heat, no sewage disposal, no roads—how they stood it I do not know. But I often had occasion to marvel at the courage of my patients.

DR. BROWN: Probably they often marvelled at the courage of their physician.

(*Following this another associate of Dr. Trudeau's appears from the left in the guise of Father Time, wearing a long, white, obviously false beard and carrying a bottle of chloroform. The guests and Dr. Trudeau realize that the scene is a hoax and show their amusement at this burlesque of Osler's famous theory.*)

FATHER TIME: The illustrious scientist, Sir William Osler, has declared that when a man becomes sixty years of age he has passed the limit of usefulness. I therefore come to-night to claim Edward L. Trudeau, who is celebrating the sixtieth anniversary of his birth. Come! Bid your friends farewell! Make room for younger blood and keener minds!

(*An elderly member of the group rises and addresses Father Time.*)

ELDERLY MEMBER: I protest against this ill-advised deed of the world's oldest inhabitant! Can it be that Father Time himself is suffering from the ravages of age?

FATHER TIME: Your protest can bear no weight, my friend. You, yourself, are too close to the age-limit of usefulness. Edward L. Trudeau, come with me!

(*A second and younger member of the group jumps from his seat and pleads with Father Time.*)

YOUNGER MEMBER: But I, Father Time, I, a younger man and, therefore, according to our famous colleague, a more able one, beseech you to spare to us our beloved friend and leader. For to whom else shall young blood turn for counsel and instruction, if not to one who possesses the wisdom of experience? Youth, as we know, has boundless energy and ambition, but no matter how great the pupil's thirst for knowledge and success, it must remain unassuaged until the master guides him to the spring. In his own youth, Edward L. Trudeau blazed the way for those who were to follow. To-day, he is the beloved teacher of those who sit at his feet. Therefore, Father Time, withdraw your decree. Spare our honored guest and search elsewhere for one whose life is not so indispensable.

FATHER TIME: Young man, you plead well indeed, and I listen. (*He takes a folded parchment from the folds of his gown.*) (*Ironically.*) When one so young declares a man of sixty indispensable and his superior, surely there is truth in what he says! (*He hands the parchment to Trudeau.*) Edward L. Trudeau, I herewith give you permission to live as long as you can! (*Trudeau accepts the parchment.*)

TRUDEAU: I thank you, Father Time, for your gracious grant, and I assure you all that I shall endeavor to make the most of my opportunities.

CURTAIN

(*To be continued*)

The Jewels of Cornelia

A Health Play in One Scene

By JAMES A. TOBEY, Washington Representative, National Health Council, Washington, D. C.

CHARACTERS:

Cornelia, a Modern Mother
Althea, Charles } *Her Children*
The Jeweler
The Robber
The Policeman
The Vision, Cornelia of Ancient Rome
Ruby — *Opal*
Emerald — *Topaz*
Pearl — *Amethyst*
Turquoise

Time: The Present.

Scene: A room in a modern dwelling, furnished as a boudoir. Cornelia, the mother, is seated in front of a tall mirror at the left. Before her, spread out on a small console table, are several jewel cases and articles of jewelry, which she is admiring, paying no attention to her children, who are seated at a small table at the right. On the table are tea, cake, and candy. There is a door at the back of the room and a window at one side.

Althea.—Oh, let's go out. We have been in this stuffy room all day.

Cornelia (*crossly*).—But you bothered me for hours until I allowed nurse to bring you in here.

Charles.—I don't want to go out. Besides, I haven't finished my cake and it is too cold out. We might catch cold.

Cornelia.—Then finish it and play nicely with each other, and don't disturb mother. (*Holds up a necklace and smiles at her reflection in the mirror.*) How beautiful these are!

Althea.—Huh. You don't catch cold by going out! Teacher says we ought to be out most of the time. She says my name, Althea, means "A Healer," and your name, Charles, means "Strong," and that we ought to live up to

them. (*Picks up a book and holds it close to her eyes.*) I wonder what makes my eyes ache so?

Charles.—How you squint. (*Takes a huge bite of cake.*) My tummy hurts. (*Gurgles some tea.*) This tea is cold, ugh.

Cornelia (*as if to herself*).—See how they gleam, how they glow. (*Holds a bracelet at arm's length.*) That emerald is my most priceless possession.

Althea (*throws down book.*)—I am so tired.

Charles.—Edward is sick. The doctor says he has scarlet fever. I am going to visit him to-morrow.

Althea.—Oh no, you mustn't go where people are sick. The germs will jump on you.

Cornelia (*letting rings and other jewelry slip through her fingers*).—How dull life would be without these trinkets.

Althea.—Teacher says Edward is an unhealthy child. I wonder if we are healthy.

Charles.—I dunno, let's ask mother.

Both.—Mother, are we healthy?

Cornelia.—I suppose so. Don't bother me now, children. It must be about time for the jeweler to come to show me his wares. (*A knock at the door.*) Ah, here he is now, I am sure. Come in.

(*The jeweler enters. He carries a satchel.*)

Charles (*getting up, yawning*).—Oh, come on, Althea, let's go down to the grocery and get some pickles. Mother won't want us around while this old jeweler is here. (*Charles and Althea exeunt.*)

Jeweler (*smoothly*).—Good afternoon, madame. I have such beautiful gems for you to see. Exquisite, madame! (*Opens satchel, takes out jewelry, and sits down near Cornelia.*)

Cornelia (*eagerly*).—Yes, yes, show them all to me.

Jeweler.—Here is a fine ruby bracelet. See how it glows with ruddy color.

Cornelia (*with much interest*).—It is handsome. What else have you?

Jeweler.—This emerald. See its luster; green like the sea.

Cornelia.—It is indeed beautiful. Show me more.

Jeweler.—Look at these pearls, Madame. Perfectly matched and created to grace a beautiful throat.

Cornelia.—They are exquisite. And what else?

Jeweler.—This turquoise ring. Blue like the sky.

Cornelia.—Yes, it is wonderful. But your others?

Jeweler.—Here are opal ear-rings. See their iridescent splendor.

Cornelia.—How they glisten.

Jeweler.—And this topaz. Yellow as the sunshine and a glint like fire.

Cornelia.—I love them all.

Jeweler.—The deep, rich amethyst of royal purple.

Cornelia.—They are all gorgeous. But you have shown me no diamonds. I prefer the diamond to all other jewels. Have you no diamonds?

Jeweler.—I have saved the best for the last. This will charm you most of all. See, madam. (*Holds up a lavalliere.*) Behold this marvelous diamond lavalliere.

Cornelia (*with much enthusiasm*).—What a remarkable jewel!

Jeweler.—Not only is the stone wonderful in itself, but there is an interesting legend connected with it. A story of old Rome.

Cornelia (*rising and walking about, admiring the gem*).—Of old Rome, you say?

Jeweler.—Yes, madame. This lavaliere belonged to a noble lady of ancient Rome. She was very rich, but she never wore any jewels in public, in contrast to the other wealthy ladies of her day. Her name was Cornelia.

Cornelia.—Why, that is my name, too.

Jeweler.—Then it would be a most appropriate stone for you. It is said that the owner of this gem is able to look into the past. The mysteries and glories of bygone centuries will unfold to her gaze. They will be spread before her, resplendent in all their dazzling beauty.

Cornelia (*eagerly*).—I will take it. Yes, yes, I want this lavalliere. Send the bill to my husband, as usual.

Jeweler.—You will never regret it. Is there anything else? (*Cornelia is paying no more attention to him, but admiring the lavalliere. The jeweler smiles blandly, bows, and goes out.*)

Cornelia (*excitedly*).—At last, at last, I have that which I have always desired. What greater joy can any woman have than the possession of a splendid diamond? (*Holds it before her.*) This is the kind of thing that makes life worth living.

(*Althea and Charles rush in.*)

Charles.—Mother, I'm hungry. Give me some cake, please.

Althea.—I'm hungry, too. (*Whines.*) I want a cooky.

Cornelia.—Why do you children always come to bother me when I am looking at precious things, like diamonds? (*crossly*). You are always around when I don't want you. (*Sighs.*) Well, I suppose I might as well attend to you and avoid a fuss. Come out to the kitchen. (*They all go out.*)

(*A noise is heard at the window. It is cautiously opened. The robber climbs in. He wears a mask and carries a dark lantern. He goes about the room, looks in drawers, under things, and sneaks around in true robberish manner. Finally he reaches the table upon which Cornelia's jewels are still heaped. He sweeps the gems into a cloth bag, tip-toes across the room, starts several times, climbs out, leaving the window open.*)

(*Cornelia, Althea and Charles enter.*)

Cornelia.—Well, now, you ought to be satisfied with those doughnuts cook gave you. I must see how my lavalliere would look with my ruby. Did you children see how it sparkled in the sunshine in the kitchen? (*Goes to table, discovers her loss, is horrified, gasps.*)

Where are my jewels? Charles, Althea, have you touched my jewels? No, how could you? They were here when we went out. Where are they? (*Turns, sees open window, screams.*) They are gone. They are stolen. Oh, what shall I do?

Althea.—Oh, mother, I am so sorry.

Charles (*to Althea, pulling her sleeve*).—I'm not sorry. Maybe mother will pay more attention to us now, instead of those old jewels.

Cornelia (*running about the room in a confused way*).—Run, children, get a policeman, quick! Oh, what shall I do, what shall I do? They are gone. My priceless jewels. Thank heaven, he did not get my new lavalliere.

(*Charles and Althea run out.*)

(*Cornelia, exhausted, sits down on a chaise-longue, gets up, sits down again. She passes a hand over her forehead and then sinks back into the cushions She unclasps the diamond lavalliere from her throat and holds it before her.*) You beautiful thing, if your ancient magic could only help me to find my gems! (*Her hand drops to her side, gradually her eyes close. She falls asleep. The room grows dark. A tall, white figure slowly approaches from the left. Cornelia, startled, sits up.*)

Cornelia.—Who are you? What do you want here? Are you a policeman? No, no, of course not. Have you my jewels?

The Vision.—I am Cornelia of ancient Rome. I have come to you from the second century before Christ. I have come to help you.

Cornelia.—Will you find my jewels for me?

The Vision.—I do not know. But I did see a quantity of precious things just outside your door. Perhaps they are your jewels.

Cornelia.—They must be mine. Bring them in.

The Vision.—You must identify each one. Behold.

(*Ruby enters. She is dressed all in red.*)

Ruby.—I am Ruby. I come from the far-off land of Burma. I and my brothers and sisters are everywhere. I represent the warm glow of good health. I am the flush in rosy cheeks, kissed by the sun and the wind. I am the pure red blood that flows in all who are strong and well. To have me for friend, one must practice all the rules of good health.

Cornelia.—What strange things this jewel speaks. I fear it is no gem of mine.

Cornelia.—That is your loss, then. Here is another.

(*Emerald enters. She is dressed in brilliant green.*)

Emerald.—I am Emerald. My home is in Peru, but I have been the plaything of mankind for many centuries. Nero used me for an eye glass. It is said that I am a charm against diseases. And so I am. But my charm works only when one follows the rules of health. I will tell you what they are. They are no secret, either. Listen. Breathe pure air, eat good food and drink pure water. Sleep enough, exercise enough, don't worry, take care of yourself. Keep away from those who are sick. These are some of the charms which prevent disease.

Cornelia.—You are charming, little jewel, but I must be honest. You have not belonged to me.

The Vision.—You see what you have missed. Behold another.

(*Turquoise enters. She is dressed in sky blue.*)

Turquoise.—I am Turquoise from Persia. I represent the blue sky and the great outdoors. My vassal is the fresh air. Did you hear what my friend, Emerald, said about breathing pure air? She is right. There is nothing better for breathing than that. Do you know, people used to think that I changed color with the state of my owner's health. That is wrong. I am always the same, but my owner changes color sometimes. I have seen the ruddy glow of good health go from the cheeks and in its place come the sallow of ill health. There is no need for that. Good health will stay forever if one only follows the rules.

Cornelia.—Your color is like the shallow sea and yet like the heavens, too. But you have been a stranger to me.

The Vision.—You and your family have missed many good things. I will set a star in your heaven. Behold.

(*Topaz enters. She is dressed in bright yellow.*)

Topaz.—I am Topaz from the Russian mountains. I represent the yellow sunshine that shines on all, rich and poor, young and old, sick and well. I am absolutely free and there is plenty of me. I am the good friend of health. In fact, I help good health a great deal. The sick need me, especially, but sick or well, all need me.

Cornelia.—You make the other jewels glisten, oh Topaz.

The Vision.—You must get well acquainted with her. Here is another gem.

(*Opal enters. She is dressed in a rainbow gown.*)

Opal.—I am Opal from Hungary. I represent the human eye. I am the window of life. Take care of me. Do not abuse me. If you lose me there is no more joy in the world. All would be dark and sad. Do not let me grow dim. I am the servant of good health.

Cornelia.—We need you, Opal, to see the other jewels.

The Vision.—Yes, you have needed her, oh Cornelia, for you have not seen many things which you should have seen. Behold another.

(*Pearl enters. She is dressed in white.*)

Pearl.—I am Pearl from the dark, deep bays of the southern seas. I represent the white teeth. Keep me always white and clean. You need me to chew the food which makes you strong. I detest pickles, doughnuts, cake and other unnecessary sweets. I want good bread and foods which make one big and well. I also represent milk, the white food which is best of all for children. I am the best friend of good health.

Cornelia.—There is one thing you forgot to add, oh Pearl. When you represent the white

teeth, you bring to us the laughter of youth, which makes the world worth living in.

The Vision.—I see these jewels are beginning to interest you. That is good. Behold another.

(*Amethyst enters. She is dressed in purple.*)

Amethyst.—I am Amethyst. I come from Brazil. I represent proper living. People used to call me Temperance. I am temperance of body and soul, of food and drink, of play and study, of all things, in fact. I, too, am the friend of good health.

Cornelia.—These precious stones that you have shown me are indeed wonderful, oh lady of Rome. But have you no diamonds? I prefer the diamond to all other jewels. Are there no diamonds?

The Vision.—I have saved the best for the last. I have two diamonds. They are the fairest in all this collection. Jewels fit for any queen. Behold.

(*Althea and Charles enter. They are dressed in iridiscent tints to represent diamonds.*)

(*A noise is heard. A shout. The robber dashes in. He is dressed in black, with his mask on. The jewels scatter in a frightened manner.*)

Robber.—Ah, ha. Quite a haul, I see. (*Looks around.*) Careless of someone to leave you jewels where I can steal you! I am the thief, the robber, the highwayman, the bandit, the brigand, the cutthroat, the spoiler, the plunderer, the felon, the criminal, the crook, the snatcher of all that life has that is any good. I am Bad Health. Outside of all that, I am quite harmless. (*Leaps about the stage, clutching at the jewels who cower before him. As he sees Charles and Althea, he leaves the others for a moment and grabs each child by the shoulder.*) Guess I will grab you two fine looking diamonds first of all.

(*Cornelia runs to her children and attempts to rescue them from the robber's clutch.*)

Cornelia.—Never. Bad Health shall never get my children!

Robber.—Give them to me, I say. You left them where I could easily have stolen them before, and now you deny them to me. Give them to me, I say!

Cornelia.—Help! Help! You shall not have them! Police!

(*The policeman enters. He is dressed in the regulation uniform and has a red moustache.*)

Policeman.—What's the trouble here? (*He seizes the robber.*) Come here, you thief. I've got you at last. Thought you could escape old man Knowledge, did you? No, sir. Bad Health can never get away from Knowledge. You'll go to jail where fellows like you belong.

Cornelia.—Thank God, my children are safe!

The Vision.—Are they indeed your children? They look like jewels to me. Are you sure you are right?

Cornelia.—Why, of course. My children are my jewels. These other jewels you have shown me have not been mine, but they will be in the future. My children have always been mine. Perhaps I have not always taken the best of care of their health, but I certainly shall after this.

Policeman.—Come on, now, out with you. (*Takes the robber away. All follow him, except Cornelia. Lights out, if possible, and a pause.*)

Cornelia (*as if waking from a dream*).—Why, where am I? Where are all my jewels? Where is the lady from Rome? (*Looks around.*) Why I am here at home. (*A commotion outside, then policeman enters holding the robber by collar. Charles and Althea are with him.*)

Policeman.—Begorra, you'll behave you squirming thafe. Shure now, and it's a crack over the head I'll be after giving you. Here is the dirthy blackguard, mum. Trying to stale an honest lady's jools. Give 'em up, now! (*Robber hands bag of gems to Cornelia.*)

Cornelia.—Thank you, officer; you are a brave man to apprehend Bad Health.

Policeman.—Who? What? Shure, mum, all I did was catch him. And his name isn't Bad Health. Shure, now, this is Slick Mike, the chape thafe. No spalpeen like him can put anything over on Officer Clancy. Come on, now, you for the jug. (*They go out.*)

Cornelia (*tossing the bag of jewels on the table*).—I am glad to get them back, but they are not the real gems. They are only toys, baubles. (*Hugs her children.*) You are the real jewels of Cornelia. I shall never neglect you again. You shall be strong and well for evermore. Yes, yes, you are my jewels!

Curtain.

Rochester's Nutrition Institute

By MRS. ETHEL M. HENDRIKSEN, Executive Secretary Tuberculosis Association of Rochester and Monroe County, N. Y.

INSOFAR as the prevention of tuberculosis depends upon the building up of bodily resistance, the nutrition class is important in tuberculosis programs. It teaches school children the value of frequent rest periods for the avoidance of over-fatigue; its plan of measured feeding makes sure the child secures sufficient calories to provide the energy required; the linking up of home, school, physician and the child's own interest, builds a fence of protection around the growing body which augers well for its future good health and resistance to disease.

Rochester, N. Y., is one of the foremost cities in working out a community program for the correction of malnutrition. The work was introduced and promoted by the

Tuberculosis Association, but its success was due to the interest and cooperation of many important agencies, of which the Board of Education was the chief. The first step was a meeting with the Board of Education following lectures by Dr. William R. P. Emerson of Boston and Mrs. Ira Couch Wood of Chicago. Then the Tuberculosis Association provided funds for a Nutrition Institute which was conducted in November 1920 by Dr. Emerson. The Department of Health Education of the public school system was delegated by the Superintendent of Schools to have charge of the work. The Board of Education paid the Institute fees for twenty teachers to take the lectures equipping them for the work. Eighty other persons came in for the lectures, including twenty-three physicians who afterwards aided in the work.

It is difficult to conceive a more fascinating and inspiring course of lectures than were furnished by Dr. Emerson and Miss Skilton, his assistant, during the two weeks of the Institute. Previous to the lectures children had been weighed and measured and selections made for four classes. From the children selected for the classes, Dr. Emerson drew clinic material. The children with their parents came before the Institute group and were diagnosed by Dr. Emerson. Some of the causes of malnutrition which he discovered included the general physical defects, tonsils, adenoids, defective teeth, vision, and a few cardiac cases, but the most interesting were the diagnoses involving home control. One child was found who had fifty cents a day for candy and was living on sweets almost exclusively. Another child was reading in bed until a late hour. Many had music lessons, clubs and a variety of activities outside school which gave them programs of ten and twelve hours in some instances.

More malnutrition was found in the better districts than in the poorer neighborhoods, giving proof to Dr. Emerson's statement that malnutrition is not a disease of poverty. However, when pointed out, malnutrition was more quickly remedied among the children of the better neighborhoods than in the poorer homes.

Aside from the lectures given on the identification of malnutrition and its treatment, Dr. Emerson and Miss Skilton have worked out a most complete machinery for the operation of the nutrition classes.

Large charts are provided for each child in the class and these provide for all the data regarding weight and height and in addition a space is indicated for red and blue stars to be placed each week when rest periods and lunches have been faithfully observed. Some charts also provide for green stars when mothers attend and silver stars when nutrition books are properly written up and returned. Then the child gaining the most for the week sits at the head of the class and a gold star adorns the chart. Children are seated in the order of their gains and parents are seated directly back of them.

The nutrition book which is provided each child gives tables of all the common articles of food, telling what quantities equal 100 calories. The child is required to keep a record of food eaten for two days of each week. These two days are averaged and the amount of food the child is having is recorded in calories on the chart. Many children were found who were eating less than 1200 calories a day when they entered the class. Through the class instruction this amount is usually increased to 2500 or 3000.

The physical examination blanks which are provided for the class are the most complete records of the kind which can be devised. Each child in the class is thus given a complete physical examination in the presence of the parents on entering the class. The nutrition worker takes the dictation, making sure the physician misses no points in his examination.

The detail of all this system of records and reports which when carried out makes the work so complete, is taught by Miss Skilton. It is not the least important step in the Institute.

With the public school classes under the direction of the Board of Education, the Tuberculosis Association was free to organize the rest of the city in the nutritution work. Two workers were assigned to the parochial schools; later classes were organized in orphanages and in the summer a class was provided at one of the settlements.

To study the problems of children who had failed to gain in nutrition classes, the Association established a nutrition camp. It was found that practically every child taken to the camp was able to gain, establishing the fact that the difficulty was with the home. Weekly meetings of parents were held and better home control was secured. Children were asked to come to the office each Monday with their parents to be weighed after their discharge from camp.

Class gains in every instance were more than 200 per cent. in excess of the normal rate of gain and in some instances the gains were as high as 375 per cent. Dr. Emerson has demonstrated that up to 500 per cent. of the normal may be expected and Rochester will strive for that maximum next year.

When Is an Exhibit?

By E. G. ROUTZAHAN, Assistant Director, Department of Surveys and Exhibits, Russell Sage Foundation, New York.

THIS is a sad but joyous occasion for me. I have expressed my emotions on exhibits through impassioned pleas and ponderous discussion, and yet people still think of me as a walking propagandist for doing everything through exhibit forms.

Having failed to convince more than the few that I think of exhibits for selected use and only when they will better serve than some other form, and that they can be useful only when they are part of a plan of campaign—having failed in getting this over, I was glad to accept the invitation of our honored and youthful secretary to see if we can find some fun in what we call exhibits.

This is more or less a patchwork—a crazy patchwork you may decide before I am through. Besides Mrs. Routzahn, six others in our office have contributed the bright ideas—so whenever you wonder that I should have thought of it, you will be safe in placing the responsibility on one of my collaborators.

When is an exhibit? Well, I should say that it is really an exhibit several months, perhaps six months, before the show is to come off. At that time it is in the tuberculosis secretary's head and it is really a wonderful affair. It is the best exhibit that has ever been made on the subject. Crowds jam the aisles. It is an event to be remembered. It is colorful and absorbing, informing and inspiring.

Along about two weeks before the event is to come off terrible things have happened to this exhibit, and I am not sure it is an exhibit at all now. All sorts of unexpected routine duties that regularly take the secretary's time have intervened, and so at this stage he is madly seeking a sign writer and cutting up some of his leaflet material to be enlarged into placard forms, gathering up his photographs, etc. When is an exhibit? At least *that* exhibit was all over six months ago when the secretary laid aside for the time being his beautiful dreams.

But really now, when is an exhibit? Perhaps it is when Dad and Mother and Mary and Willie going along the aisles of the exposition, or on the fair grounds, or past a vacant store in the street, all of them on their way to some great event like the circus or the side-show, are drawn irresistibly to that tuberculosis display. Dad says, "Wait a minute, I want to hear what that man is saying." Or Mother says, "I want to see what that lady is doing." Or Willie says, "Oh, see all those things moving up and down." Or Mary says, "What beautiful colors. I want to see what's there." Then it may be that it is an exhibit—but maybe it is not. Perhaps after their attention has been caught they are disappointed. Dad says, "Oh, he is just talking some highbrow stuff;" or Mother says, "She is not making anything that I could do at home;" or Mary says, "Those nice colors were just some decorations and all the rest were words."

When is an exhibit? It is probably an exhibit when Dad will stay for five minutes until the man finishes what he has to say, or when Mother waits to ask the lady a question. It begins to be hopeful that it really is an exhibit when a family goes off saying, "You know there is something in it. I would like to know more about it." Still, I am not even now at all sure it is an exhibit. We really cannot tell until the next day or perhaps the next week. We'll really know when Dad begins paying out good money for fly screens, or an extra quart of milk a day, or when Mother racks her brains over balanced meals and comes out triumphantly with an appetizing vegetable added to the dinner and meat cut down occasionally, or when Mary says, "I want a pair of those good-looking low-heel shoes," and when Willie asks for a new tooth brush, and perhaps even uses it (but of course we do not want to ask too much of an exhibit).

Just when did this exhibit happen? I think it hasn't been pulled off yet, but maybe it is going to be shown in one of the county fairs—maybe a half-dozen of them—this summer.

I haven't felt satisfied altogether with any of these answers to the question, "When is an exhibit?" So I went to the laboratory of one of the great modern Decide-Everything-by-Questionnaire Wizards, asking him for a series of questions he would give to applicants. Mr. Edison said:

"Tell me what an exhibit does and then I will give you the questions to qualify you for a job."

Upon my reply that an exhibit must

(1) Attract attention;
(2) Secure reading or examination;
(3) Awaken interest;
(4) Get action.

Mr. Edison said: "I get you. Here are the question:"

Should an exhibit be worked up with the idea of getting something across? Give the advantages of such an effort, and its disadvantages.

Assuming that it is worth while to have an exhibit, is it worth while to consider making the exhibit worth while?

If you wish to show the comparative death rate from ten diseases most popular with health workers, would you have bars set up vertically or horizontally? What tuberculosis exhibitors would you put behind the bars and for how long?

If you wish to get a community to support public health nurses, would you display a large crayon portrait of a group of tubercle bacilli beautifully mounted, or a group of tuberculous nurses?

(*Continued on page* 53)

Journal of the Outdoor Life

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The aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

Discipline

THE hardest lesson of life is discipline. The lesson begins with babyhood and continues down to old age. It is a lesson in self-control and in the mastery of environment that colors the philosophy of our entire life.

To the tuberculosis patient discipline is a prime requisite. Every specialist in tuberculosis is agreed that the man or woman who has schooled himself into that degree of self-control where he can rise above the circumstances of life will have an infinitely better chance to get well than the shilly-shally, wishy-washy type of person who constantly looks upon life merely as a succession of events and to whom discipline means nothing.

The treatment of tuberculosis is essentially a treatment of regimen, and regimen means discipline. It takes more than ordinary mastery of the will to stay in bed when one's physical condition is seemingly such that he could get up and walk about. To be labeled "dangerously sick" when you feel better than you ever did in your life, requires the exercise of something more than ordinary common sense. It requires vigorous discipline of that type that the Stoics used to talk about.

Discipline is a grace in itself that may well be sought after, in fact one of those graces that rank high in the category of human virtues. To the tuberculosis patient, it is more; it is medicine;—in fact, it is Life.

A Demonstration That Demonstrates

FRAMINGHAM has justified its slogan "Health First" as well as the investment in tuberculosis prevention that the slogan implies.

The death rate from tuberculosis in Framingham in 1921 reached the low level of 40 per 100,000. If a few questionable deaths which in most cities would ordinarily be excluded from tuberculosis deaths were left out, the rate in Framingham, including residents and non-residents, for pulmonary and non-pulmonary tuberculosis would be 28.7. The latter death rate would indicate a decline of over 76 per cent. and the former of 67 per cent. from the rate of 121 per 100,000, the average for the ten-year period ending with 1916 and immediately preceding the demonstration.

Contrasted with the death rate in

Framingham is the rate in seven cities which were selected without their knowledge as "control" cities for comparison. In these cities the average rate for the ten-year period ending with 1916 was 125. The 1921 death rate was 103, a decline of 18 per cent.

As stated by Dr. Livingston Farrand in commenting upon these figures, "The logic of the situation is unavoidable."

The Framingham Health and Tuberculosis Demonstration has clearly shown that where intensive methods of work are applied the death rate from tuberculosis can be reduced to a nominal minimum. There is every reason to believe that the present low rate will be brought down further by continued effort. The decline of tuberculosis mortality in Framingham is clearly not an accident, nor is it due to the influenza epidemic, nor to the economic situation growing out of the war, nor to any constitutional or racial factors existing in the population, nor to any one of a dozen other so-called reasons that skeptics are wont to advance. It is clearly due to the hard work put in by Doctor Armstrong, Doctor Bartlett and their associates, to the far-seeing vision of the Metropolitan Life Insurance Company in supplying the funds and to the leadership of the National Tuberculosis Association in giving the technique.

We cannot help but remark with reference to the Framingham demonstration in those words of the Master of old, "Go and do thou likewise."

Annual Meeting Arrangements

CHAIRMEN for the Eighteenth Annual Meeting of the National Tuberculosis Association to be held in Washington, D. C., May 4, 5 and 6, have been appointed by the Board of Directors as follows:

Clinical Section—Dr. Charles R. Austrian, Johns Hopkins Hospital, Baltimore, Md.

Pathological Section—Dr. Charles Krumwiede, Department of Research Laboratories of the New York City Board of Health, New York City.

Advisory Council—Dr. William F. Snow, General Director American Social Hygiene Association, New York City.

Sociological Section—Mrs. Edythe L. M. Tate-Thompson, Executive Secretary California Tuberculosis Association, Fresno, Calif.

Nursing Section—Miss Anna M. Drake, R. N., Director of Public Health Nursing, State Board of Health, Des Moines, Ia.

It is highly advisable that those planning to attend make hotel reservations early. Information concerning hotels and rates may be secured from the National Tuberculosis Association.

Prayer of Sanatorium Hill

By SHIRLEY THORNAM KAYE

Spirit of the All-Good,
Brooding over this hill,
Dwelling in lights and shadows,
Give us thanksgiving.
For sunshine and green hills,
Cool rush of night wind,
Laughter and comradeship
And the healing quiet of rest.
May this be a hill of vision,
Revealing to us the valleys,
Where live men and women
Who struggle with dire conditions,
Sending them this way.
May we, who have gained understanding,
Fight their battle along with our own
For the gladness and health of the future.
Let us enlarge our hearts,
Like the sweep of horizon around us,
Know deeper the value of life
From the whispers of death we are hearing;
Feel closer the human touch,
Love truer the beauty of Nature,
And grow serene like the stars
Looking down on our open pavilion.
May it be no idle prayer of the lips,
Thou Teacher of the All-Good,
When we say, "Thy Kingdom Come,
Thy will be done among men."

Joy Flingers

A Department of Cheer

Edited by J. F. O'Neill

Reading for Joy!

By JOHN TOMBS, La Vina, Cal.

RECENTLY a patient at our San burst into my room and without preliminary of any sort exploded approximately as follows:

"Don't you ever think of anything else besides acquiring knowledge and reading books of travel 'n' history 'n' studying 'n' everything? I've read your articles in the JOURNAL OF THE OUTDOOR LIFE and I think they are fierce — don't you ever read anything aside from the line of stuff you hand out in them?"

"Oh, yes, madame," I said. "For instance, I have just learned that the John Crerar Library in Chicago has compiled a list of more than a thousand books and articles on the Einstein theory of relativity, and I assure you I am looking forward to many pleasant hours with them during the long winter evenings, and—"

"You poor fish," she broke in, "don't you ever read for—for—just for joy?"

Now there are few things I value so highly as the good will and esteem of my fellow San citizens, so I hastened to make a clean breast of the matter and let the cat out of the bag—for it is a fact, in spite of the learned pose the articles referred to seem to have unconsciously assumed, I am not a one-hundred-per cent. reader of serious books.

Yes, I read them and approve of them—we all do, of course, but—every once in a while I send for the San library catalogue and scan it over to see what there is left that I have not read of W. W. Jacobs, Stephen Leacock, Alfred Henry Lewis, Judge Henry A. Shute and kindred spirits, and I "sail away in fancy" to *Sunwich Port, The Back of Beyond* and *Wolfville,* and I sit up reading *The Real Diary of a Real Boy* till the night nurse comes and asks me if I don't know that it's three minutes after nine and my light is keeping the whole infirmary awake.

Yes, indeed! After I have read just about so many such books as *My Four Years as a Deserving Democrat, Through the War with a Knife and Fork, Malice in Blunderland,* and *Now It Can Be Sold,* I am ready for a change of mental diet. And I read *Brite and Fair,* a sequel to *The Real Diary of a Real Boy* series. Real *Brite and Fair* if you are interested in the actual adventures of three of the darnedest young devils that ever bent a soft tomato over a school superintendent's nose. Get the real inside dope on Plupy, Beany and Pewt and their friends and victims. This book contains "the things they didn't dast print" in the earlier volumes.

Of course, the list of humorous writers is long and they all have their backers, myself among them, but when I want to be lifted clear of all mundane ties I read Stephen Leacock. Oh, almost anything of his does it. *Sunshine Sketches, Literary Lapses, Nonsense Novels, Behind the Beyond, Arcadian Adventures With the Idle Rich,* or what not.

And then W. W. Jacobs. I am sure that few writers have turned out as many acceptable humorous short stories; apparently "age does not wither nor custom stale his infinite variety." Most of them are located in the small seaport towns of England and on the smaller coastwise craft. In many of them the same characters turn up again and again, and it is fascinating to speculate upon who will come out on top in the various innings in the long feud between Bob Pretty (a poacher and all-round low character who travels in wonderful luck) and the Claybury men. The three shipmates, Ginger Dick, Old Sam and Bob, as well as "the night watchman," provide much of the action in others of the stories. As a starter and by way of becoming acquainted, you might get *Many Cargoes* and read the first story called *A Change of Treatment,* and see what it did for "four pore sailormen" of the "artful" type. Maybe it might help your own case.

Then there are the *Wolfville* stories by Alfred Henry Lewis. A few weeks ago the press of the country carried a small news item to the effect that what had been the townsite of Charleston, Arizona, had been sold to a cattle company for $342. *Sic transit gloria mundi.* Thus passed Wolfville, but though under a fictitious name, the story of Charleston has been told and well told and has resulted in an amazingly diverting series of books. As you read you actually feel the presence of "the old cattleman" in whose words most of the stories are told.

Wolfville becomes real to you and your

back hair rises at the mere mention of Red Dog, the rival speck of dust away across the desert. You find yourself in complete accord with the somewhat abrupt methods of Old Man Ennright, Alcald and Jack Moore, who acts as kettle tender. You instinctively admit the leadership of Doc Peets and understand at once the domestic arrangements of Cherokee Hall and Faro Nell and take a genuine liking to rough and ready Dave Tutts and Dan Boggs, while sympathy for Texas Thompson whose domestic bark has struck a shoal is not lacking. Yes, and before long you even develop a feeling akin to pity for Old Monte, the worthless drunken stage driver who seems to have a special Providence detailed to keep him from harm.

"Now you may not like all the books I have mentioned, but if some of them don't make you r'ar back on your chasing-chair and crack your heels together then you are not the girl I took you for and I am greatly deceived—"

But when I looked up my visitor had gone—(possibly in the direction of the library).

Wishin'

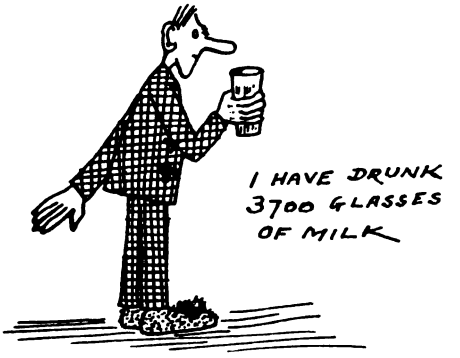
By RAY C. SMITH, North Bergen, N. J.

When your heart is sore from wishin'
For the things you've missed in life,
And your faith and old ambition
Slip away and gloom is rife—
Just keep breathin' in the ozone,
Force a grin, and "get" this too:
It's your backbone, not the wishbone
That's a-going to pull you through.

Since I Had'm

By RALPH STUBBS, Blytheville, Ark.

Since I have had'm I have eaten 2,500 eggs, in every shape, form, and manner, except raw;



drunk 3,700 glasses of milk, and consumed 600 loaves of bread fixed up as milk toast.

I have had my temperature "taken" over 2,600 times, and broke three temp sticks. Have spilled three hot-water jugs on my feet, worn out ten rubber hot-water bottles and a dozen rubber rings.

Have slept on one side all the time, with a tender spot on the ear on that side, and another close by.

My pulse has been filed over 2,600 times, two teeth have been pulled, and five gallons of salve have been rubbed on my "ploorisy."

I have been under the X-ray ten times and under the stethoscope 50 times. I have had thirty accidents that required the nurse, her hypo, and the bag of ice for my chest. Number of ice-bags for my head—no record.

Consumed over 1,200 cups made by Stone & Forsythe, Boston.

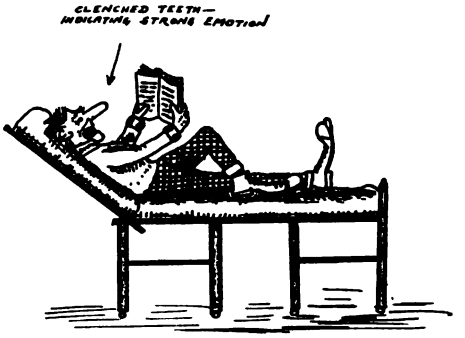
Used 200 pounds of paper napkins and 3,500 No. 4 Sacks.

Flirtations with nurses—too dangerous. Cursed doctors—same.

I have put on my clothes over 4,000 times. Taken them off—ditto.

PRONOUNCED A GONER FOUR X.

I have taken over 3,000 baths and ten gallons of American Oil. Used 1,500 quarts mouth wash, 10 quarts of Chlorotone Inhalent, and swallowed 3,000 soda mints.



Fifteen men have sat on my chest, listened, and thumped. They have tweaked my ears, poked down into my throat, and lifted my nose.

I have whispered 1-2-3, and gone through the "in and out" stunts.

Have had tonsilitis and three good rounds of the Flu.

Have been broke and lost a home.

Am doing nothing, but—

Eatin',
Sleepin',
Thinkin'
&
SMILIN'.

Figure it up, and see what I have been doing, and how long I have been at it.

Doing a come-back at 29.

I thank you.

Gems From the Sanmags

What They Fling in Perrysburg

Have you a *Jay* Fling on you?

—*Grit-Grin.*

Don't We Know It?

After the first gay flush of sanatorium life passes the days are thrilling as a grandfather's kiss.

—*Mount McCregor Optimist.*

Flat(ulence)

Patient: Do flat feet cause T.B.?
Doctor: They may be at the bottom of it.

—*Pluck* (with liberties).

Try This on Your Bronchitis

As I sit in my ward,
So lonesome and blue,
I dream of the hours
I once spent with you.
The thought of you heals, dear,
Though but in a dream
Do I see the sweet face
Of my own fair Eileen.

—*Spunk.*

Why Girls Leave Home

Dr. Cole, our former deputy, is still interested in our nurses.

—*Sea View Sun.*

How to Brew Trouble

There was a young man from the East
Who started his cure taking yeast;
When he put in a raisin
Results were amazin'
And now the poor chap is deceased.

—*Well Country Journal.*

How Do They Meals?

A semi-ambulant patient is one who has started to meals.

—*The Stethoscope.*

The Better Part of Valor

A hazy sky bends overhead;
I smile enraptured to it;
I feel like jumping out of bed
But I don't think I'll do it.

—*Mount McGregor Optimist.*

Poor Kip Again

If you can learn to grab a pad and pencil
And feel you've had a satisfying talk;
If you can take five steps, and gulp a tablet,
And call it an invigorating walk;
If you can fill the unforgiving minute
With sixty age-long seconds well endured,
Yours is the town, and everything that's in it!
And what is more—you might—some day—be cured!

—*The X-Ray.*

Compensation

I never had no edication
When I was just a kid;
So let me tell you, friends, just what
This old T.B. has did.

At figgers I was always punk,
So now my heart exults,
I can count way past a hundred
From a-countin' of my pults.

An' frackshuns wuz so puzzlin'
They almost made me sick;
Now I count the tenths and one-fifths
From my little old temp stick.

For these and other blessings
I think joy should be flung;
But better than all these I've lerned
To breathe with just one lung.

—*Well Country Journal.*

Rad Reed Says:

For as he smileth in his heart so is he.

—*The Thermometer.*

A Suggestion for Chasers

The accompanying letter contains a suggestion that may relieve the monotonous chase somewhat:

Dear Sir: I would like to exchange cards and photos with readers of your magazine who are afflicted and shut-in. Though I am not myself an invalid I think such a correspondence would be beneficial to all concerned.

Yours very truly,
MRS. P. B. WISE,
No. 8, Roseland Home,
Mansfield, Ohio.

Readers of the JOURNAL who are interested might communicate with Mrs. Wise. Her name suggests such an interchange of cards, etc., might be profitable as well as interesting.

Most Humorous Books

Tohn Tombs sends us a clipping from *John O' London's Weekly* in which a correspondent offers these as the six most humorous books: "Vice Versa" (F. Anstey), "Three Men In a Boat" (J. K. Jerome), "Mr. Verdant Green" (Cuthbert Bede), "General John Regan" (G. A. Birmingham), "The Happy Vanners" (Keble Howard), and "Peradventures of Private Pagett" (Major Drury).

Things We Can Use

Joy Flings. Make them snappy and numerous.

Stamp data. Our philately column is still yawning for news, ideas and lists for exchange.

Chess material. The Chess Department is not dead but sleepeth. The seeds it planted are sprouting nicely and all it needs is the interest of readers to bring it back in all its loveliness. With respect to chess, Alex R. Craven, of Alto Sanatorium, Alto, Cal., writes: "May I make a suggestion about a comeback of the chess column? I took the only two names that were given in the column with full

addresses and wrote them, with the results that I am playing correspondence chess. These two men like myself never had played chess by mail and we all are getting real joy out of our games. If you will reopen the chess column as a clearing house for all persons that are interested in chess and just run names and addresses the results will be worth the space. Or if you do not want to do that I will act as a clearing house and will furnish each person interested in playing chess by mail with a list of all other persons with addresses that are interested."

We shall be only too happy to do as Mr. Craven suggests. Readers will please feel free to make such use of this department at any time, as will help to carry through the main idea, which is the entertainment of those temporarily invalid.

When Is an Exhibit?

(*Continued from page* 47)

If you wish to bring people to a clinic to be examined, would you display ten reasons why the experience is a disagreeable one, or twenty?

What is the best color scheme for presenting reasons for a health examination to people who do not reason?

What sign writer first sold tuberculosis workers on the idea of hand lettering their pamphlets and spreading them out on walls instead of printing them? What punishment does he deserve and will he get it?

Is an exhibitor made or born, and how do they get that way?

Is there any danger that the exhibit will get the desired ideas over? If so, how can this be avoided?

Is it desirable for those working up an exhibit to know what it is about? If not, why not, and if so, why, and if not so, why not?

Which should receive more attention, the exhibit or the exhibitor?

Should a motion picture on tuberculosis have five reels or ten, and how fast should it be reeled?

If it is discovered that the audience knows something about the subject of the exhibit, should the audience or the exhibit be changed?

Do you get an exhibit just because you want one or because you "ought to have one" or every one is doing it?

When more than 50 per cent. of the children in a schoolroom cannot see the words on a poster, should the poster be enlarged or should the children be supplied with spectacles?

When a plan or an idea or samples of exhibit material are submitted for "criticism," how can we determine if that means criticism or commendation?

Which of these psychological appeals is the best to use in an exhibit with a positive health message (and, by the way, what is a positive health message)?

The gambling instinct (for example, if you arouse the sporting instinct by offering 20 to 1 odds on escaping tb. are you liable to arrest?).

Fear (for example, fear of getting your name on a health department's mailing list if you sign the book at the exhibit).

Mother love (for example, in getting mother to have Willie wash behind his ears).

Obedience (for example, an appeal to the widespread instinct of Americans to react favorably to a list of 57 don'ts).

Pride (for example, a desire to weigh more than your neighbor or to have more tb. cases on the map of your state than for the one just west of you).

Is the so-called "public" more interested in reading tuberculosis propaganda than are those who are engaged in the game?

When what is known as an exhibit is not interesting enough to be read by the blasé tuberculosis secretary in whose office it is hung, is it likely that the blasé "public" will read it?

But perhaps I can best answer the question "Why is an exhibit?" by showing you an exhibit in the making. On this large sheet is a poster containing the life history of Madame Fly. On the left is a history in ten or twelve chapters in which Madame Fly is the winner of the race, and the baby the loser. On the right is another serial story in which the baby wins and Madame Fly loses. At the top is a good title for the series, and then a sub-title. Below this is the symbol of a fly campaign, namely, the fly swatter, and on very close examination you can read repeated several times the slogan, "Destroy their breeding places." One of the state departments of health has done a fine piece of work in getting together these striking ideas and illustrations which are a basis for a wide diversity of exhibit forms. This material has been used throughout one state in its present form of a poster and doubtless has accomplished great good. Its chief interest for us, however, is that here we have assembled in convenient form to work on all the material for a complete exhibit. Here is the idea dramatized, working sketches and excellent captions.

The inconvenient thing is that it is all put together on one sheet and I have to cut it up, but you'll have patience while I cut it into about twenty parts.

Having done that, let's see how the different folks we know might make an exhibit of it.

Oklahoma Schevitz is going to make up a set of posters, with the fly so vividly colored that it fairly stands out from the poster.

Pa Minnick will get up a series of car cards competing in color with the posters from Oklahoma. He will place the swatter horizontally, may even use a bit of real wire, and dis-

play this card between the two groups entitled "Fly Wins" and "Baby Wins." Pa Minnick will probably have another idea and put these pictures and captions on post cards and mail them out once a week from the first of April to the first of July.

Suppose we turn this material over to Dr. Drake. He will probably make the fly wink its eye as it lands on the baby's bottle, and will have a collection of flies behind screens labeled "the most dangerous birds found in Illinois." Then he will have a wonderful array of working models. That takes a good deal of ingenuity or some money, or both, and so the only way we can do that is to pool our funds and to have someone make it up in duplicate form as a loan exhibit for all of us. (As a matter of fact, why not do this, whatever form we put it in?)

Up in Wisconsin they will make it up into a panorama with the trail of death revealed as the story stretches across the canvas, with plenty of human interest detail, and providing good talking points for the itinerant educator who wanders through the country-side.

Let's hand the material to Thurber of Maine, and behold! A parade going down Main Street with every one of these devices life size on a series of floats. We shall call it "The tragic funeral of Madame Fly," or if we take the positive side, "The triumphant procession of the babies."

Let Miss Stewart of New York have it. She will dramatize it for the county fair and Madame Fly and the Baby will act out the whole stunt. Or she may have a weighing and measuring contest to show how much filth is carried from the garbage cans and which fly deposits the most germs in a glass of milk.

Then we shall turn it over to Jacobs, and he would at once make a motion-picture trailer out of it to shock amusement seekers throughout the land.

Then, too, it has wonderful possibilities as a Punch and Judy show, as Miss Williams of the National office could show you.

Over in Philadelphia we shall find Nimble Nathan perched in a strategic position, armed with a swatter, and at least disturbing Madame Fly in her triumphal march, or even breaking up the procession.

Eaves, the younger, will get together in conference the governors of a half-dozen states and will secure from them some live dope for press use and a proclamation earnestly calling upon all civic forces to unite in a war to the death. Or it may be that he will secure a letter from the President of the United States or induce the League of Nations to give the tuberculosis associations a mandate to administer the fly population out of existence.

Wells of New York City will probably send Madame Fly to a miniature electric chair, placed on speaker's stand, with a flash of light as the end comes.

But what would some of the others do with them? Several state secretaries would dream of getting a good cartoonist on the job and making up several more or less comic strips to be supplied in plate or matrix form for newspapers throughout the state. Or else they dream of a series of sketched advertisements showing one stage of Madame Fly's acreer daily—to be continued to-morrow and financed by the local hardware men.

On the other side of the globe Dr. Peter will make up a whole show and we shall need to get out a revised edition of The Health Show Comes to Town. Dr. Peter will dramatize it on both street and stage. He will show us a gigantic fly emerging from the pile back of the stable; the baby will cry; and with the aid of his ingenious Chinese helpers the fly will fly, until, at the end, Dr. Peters draws back a great curtain, when, stretching far into the distance, will be shown row upon row of tiny graves, or else, a great swarm of more than a million descendants of that one monstrous creature.

When IS this exhibit to be?

There are thousands of copies in its present form, but no one has started to work up its varied exhibit possibilities.

Suppose that Oklahoma and Maine, Wisconsin and Philadelphia, and the rest of us, did get busy and then we all used all forms of the exhibit? I dare not prophesy results.

But this will not happen probably until we pool our ideas and our funds and set several folks at the task of doing the job for all of us

Why don't we do it?

We haven't the time to think out the details of the ideas and the details of the construction—everyone has too much else to do.

Then, too, many of us do not get to do enough of this sort of thing to gain facility in fully developing the big ideas we do get in the midst of the work which must be done to-day because it was not done yesterday.

Wherefore, and finally, When is an exhibit?

When we can reach the kind of people we wish to reach.

When we can take the trouble to make a plan for reaching the kind of people we wish to reach.

When we find that an exhibit is better than something else in making the plan for reaching the kind of people we wish to reach.

When we can produce the kind of exhibit that is better than something else in making the plan for reaching the kind of people we wish to reach.

When we can spend the money necessary to produce the kind of exhibit that is better than something else in making the plan for reaching the kind of people we wish to reach.

When we have a concrete message worth spending the money necessary to produce the kind of exhibit that is better than something else in making the plan for reaching the kind of people we wish to reach.

Then is an exhibit!

A Tuberculosis Question Box

Suitable questions will be answered on this page each month. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," Journal of the Outdoor Life, 381 Fourth Avenue, New York City. Please write only on one side of paper. Questions received before the 10th of the month will be answered, if possible, the following month.

TO THE EDITOR:

1. Is it possible for the lungs to heal up and yet not "clear" up?
2. Is it possible for a person to become an arrested case if the lungs do not clear up?
3. If a moderately advanced case of tuberculosis puts on an excessive amount of flesh so that he is much overweight, runs no symptoms and can take two hours' exercise daily without it producing bad effects, but has lungs which do not clear up, can you call such a person arrested?
4. (a) Is there such a thing that the lungs cannot clear up?
(b) Could such lungs be induced to clear up by artificial pneumothorax or serum treatments? A. E. M., Minn.

1. The Editor does not thoroughly comprehend your question. Presumably you mean is it possible for the trouble to be healed and evidence of it in the form of rales in the lungs still persist. If this is so, the Editor replies that the American Sanatorium Association considers no lesion healed if rales are persistent in the chest.
2. No, if by "clearing up" you mean there must be no rales present.
3. No.
4 (a) It is the Editor's experience that in some instances rales persist in the chest throughout the years, although the patient has resumed his occupation and remained well.
4 (b) The administration of pneumothorax, of course, should be decided only by the physician who is able to make a personal examination of the patient. It may not even be desirable to administer pneumothorax, or it may be very desirable and the reasons for or against cannot be decided in general.

TO THE EDITOR:

1. (a) Can a person be an arrested case and still have a wheezy sound in the lung?
(b) Does it ever disappear entirely?
(c) Is there any remedy?
2. Would it be advisable to have the physician give autogenous vaccine in a case where only one lung is involved, having gained in weight, no temperature, good appetite. I feel good, look healthier than I ever did. Being in bed eight months, no cough, and expectorate one-half teaspoon a day. The only trouble is the wheezing for about six months.
3. What risk is there in using the vaccine?
S. A., Texas.

1. (a) Yes.
(b) It may or it may not.
(c) This is one of the most difficult things to treat successfully. A change of climate, at times medication, at times a change in food and surroundings may produce wonderful results.
2. This is a question which the physician himself must decide. However, under favorable conditions we see no reason to advise against it.
3. When properly given, we know of no risk.

TO THE EDITOR:

For the past six months have been taking the cure for T.B. and have improved at each physical. At intervals of every few weeks I have a chilly feeling and my temperature rises to 100°—101°. If I can only vomit, the chills cease and my temperature goes down.

1. (a) Are chills always from T.B. and what causes them?
(b) Could this come from the stomach?
(c) What causes a coated tongue?
2. Can a physician tell by examining a patient whether a temperature of 99-4—99-8 comes from activity or from other causes?
3. Would diseased tonsils cause a temperature, although a patient has T.B., also high pulse?
4. Is 99°—99-8° considered a serious T.B. temperature?
5. If a patient is running a temperature and both lungs are affected, although one but slightly, would it be possible to determine if there is activity on both sides?
6. What causes irregularity in menstruation in T.B.? If one stops, is this serious, although one has gained in weight?
7. Would X-ray be able to determine definitely whether a patient is suffering from T.B. bowels?
8. What causes night sweats?

A SUBSCRIBER.

1. (a) No, they may be caused by numerous other conditions.
The chills precede sudden rises in temperature in quite a few diseases, and in all probability are due to some toxic condition caused by poisons from germs, food, and so forth.
(b) It is possible.
(c) Toxic conditions, such as would cause elevation of temperature, indigestion and so forth, may cause a coated tongue, and sometimes bacteria multiplying in the mouth will produce a coated tongue.
2. Not always.
3. Not necessarily, but they could very easily do so.
4. Any temperature in tuberculosis is a serious temperature if it persists, because if the temperature is due to the activity of the disease it means the disease is progressing.
5. This could in all probability be determined in the course of time. One examination or consideration would in all probability not determine it.

6. Presumably an effort on the part of nature to prevent any unnecessary loss of strength or energy that is needed to combat the tuberculosis, may in some instances be the cause of a temporary cessation of menses. Primarily, of course, the poisons from the tubercle bacillus producing a lowered vitality is the cause. However, other conditions having no relation to tuberculosis may have the same effect.

7. When the X-ray shows some organic change in the intestinal tract of a tuberculous individual, which would correspond to the changes in tuberculosis of the large bowel, it can be quite safely assumed that tuberculosis of the bowel is present.

8. If caused by the tuberculosis, night sweats are the reaction of the nervous system to the poison of the tubercle bacillus.

To THE EDITOR:

1. I have had a bad odor for about two years. I have been unable to find out what caused it. I was examined by a stomach specialist; he stated that nothing was the matter seriously, but the stomach needed a little toning up. Also had a throat and nose specialist who stated nothing serious existed.

2. I was examined by an all-around doctor in a very poor neighborhood, who truthfully stated that I should have a good dentist examine my crowned and bridged teeth; probably the cause could be traced there.

3. I also had an X-ray taken of my stomach, and found that it had dropped 2½ inches from its regular place.

4. Had tuberculosis about twelve years ago; at present I consider myself a good arrested case. Would this odor come from the lungs that were affected years ago? At times my stomach swells out.

5. When I read a great deal the odor increases. J. J. B.

1-5. Presumably not. We are very sorry not to be able to tell you the source of the odor, but it could, of course, come from any of the causes already looked into, such as the teeth, gums, functional derangements of the stomach and intestines, and if there is any expectoration, especially of a pussy character, the odor could come from the lungs. The Editor does not know of any reason why reading should in any way have any influence on the odor. (The Editor takes it to mean the odor is in the breath.)

To THE EDITOR:

1. With left lung involved front and back, apex to base with cavity about size of egg, and no trouble in right side, can this become arrested?

2. Would a western dry climate be better than this?

3. Are surgical collapse operations successful and are there many being done?

F. C. E.

1. If the definition is strictly adhered to, the chances are the condition can never become

arrested, since "arrested" infers an absence of all constitutional symptoms and of expectoration containing tubercle bacilli, with no evidence of the disease in the chest, as indicated by rales, for a period of six (6) months. The X-ray to show evidence compatible with physical signs.

2. The Editor is very sorry he cannot advise.

3. If by this you mean "artificial pneumothorax," in many instances it is highly successful, and the operation is being daily performed.

To THE EDITOR:

Owing to the exclusive use of soft coal in Asheville there is a perpetual shower of soot all over the city. This seems to be rather worse at night than other times. On arising in the morning one finds the nostrils thickly impregnated inside with soot and in some places a rim of soot is noticeable on the outside. Sputum is colored intimately with the soot.

1. Now would this have any harmful effect on a T.B. and how, and in what manner would it probably be injurious?

2. Is the per cent. of T.B. amongst coal miners great or small?

1. Not necessarily.

2. Comparatively small.

To THE EDITOR:

1. I have pulmonary and laryngeal T.B. Temperature a. m. usually normal—afternoon 102° to 103°. Physician has practically given up my case since the middle of summer, as he has never known a case of throat and lung to be cured. Is he right? He is no quack of a physician, but considered one of the best in town.

2. Will you tell me if patients pass out from throat, or is it lung trouble that is the kindly instrument?

3. What effect does the germ have on the throat? We know what it does to lungs. My expectoration seems to come entirely from throat, and ability to eat with comfort after expectoration.

4. Do you know where I can get pamphlets on laryngeal T.B.? A SUBSCRIBER.

1. Pulmonary tuberculosis and laryngeal tuberculosis have existed in the same patient who has become cured unquestionably, but when both are active, of course it is rather questionable as to what the outcome may be.

2. Presumably the lung trouble. However, one or the other may produce death.

3. First there is a little nodule, which later breaks down and ulcerates, and may be considered more or less the same as an abscess on the vocal chords and other parts of the larynx. Of course, cough and expectoration, and later pain, are some of the symptoms.

4. The Editor has no knowledge of any of these having been especially written for the layman. However, the books written on Tuberculosis for the laymen, such as the ones by Dr. Lawrason Brown, Edward O. Otis and D. MacDougall King, and so forth, may give you the information you desire.

Notes, News and Gleanings

Control and Treatment of Tuberculosis in Great Britain

In England, up to September, 1920, the Ministry of Health (established in June, 1919) and their governmental predecessors had approved 422 tuberculosis dispensaries, and in Scotland 24 had been similarly approved. For the same period in England, 97 sanatoria had been approved and cases of tuberculosis received by 93 infectious disease hospitals and infirmaries. The number of beds totaled 15,781, according to the report presented by Sir R. Philip before the International Conference against Tuberculosis. In Scotland during the same period, 21 sanatoria had been approved and 59 infectious disease hospitals and infirmaries received tuberculosis cases. The number of beds totaled 2,997. A number of local authorities have instituted working colonies as part of the tuberculosis scheme. Recently, especially in connection with discharged service men, the Government has had under consideration the establishment of one or more village settlements, which would provide accommodations for the residence and occupation of tuberculous persons whose health is seriously, perhaps permanently, impaired. Administration service since June, 1919, has been under the Ministry of Health in England, and under the Board of Health in Scotland. In 1914, notification of all forms of tuberculosis was made compulsory throughout the Kingdom. The Government has undertaken to contribute toward the cost of institutions for the treatment of tuberculosis at the rate of 180 £. per approved bed. Towards the maintenance of approved institutions, the Government has undertaken to contribute 50 per cent of approved expenditure.

Work of an After-Care Committee

It is evident that no matter how complete an antituberculosis scheme may be, it will fail in the absence of some organization to assist patients who cannot remain resident in an institution and whose means are not sufficient to obtain a constant supply of all things needful for the maintenance of their impaired physical powers. To aid these people, "care committees" have been formed in various cities in England and an interesting account of the work done by the City of York Tuberculosis Crusade Committee formed in 1913 appears in the July issue of the British Journal of Tuberculosis. This Committee is supported by private subscriptions and money collected on an annual flower day. The work which the Committee attempts to carry on is as follows: (1) Provisional help for patients in need of immediate assistance; (2) extra

nourishment; (3) friendly visiting and advice; (4) maintenance of patients while under treatment until able to work; (5) provision of separate beds, so that patients may sleep alone; (6) assistance with housework or washing while patient is in a sanatorium; (7) provision of deckchairs; (8) payment of removal expenses; (9) payment towards rent of larger houses to effect isolation of the patient; (10) provision of warm clothing; (11) expenses of boarding out in the country; (12) letters for convalescent homes, hospital, etc.; (13) provision of shelters; and (14) assistance toward cost of training for more suitable work. It is worthy of consideration whether it would not be true economy to prevent the development of active tuberculosis on these lines, rather than for the State to expend vast sums on sanatoria, training colonies, and village settlements for those in whom the disease is established. So far this view does not seem to have appealed to the Ministry of Health, and no grants are available for such purposes. With more abundant funds at their disposal, Tuberculosis Care Committees can play a most important rôle in the campaign against tuberculosis.

Traveling Clinics in Wisconsin

In the November 5th issue of "The Survey," Miss Louise F. Brand of the Wisconsin Anti-Tuberculosis Association tells of the work of the traveling tuberculosis clinic in that state. Since the beginning of the work, 176 clinics have been held in 78 communities. Nearly 9,000 men, women and children were examined, and over 18 per cent of them were found to be tuberculous. Several of these clinics have been held on the Indian reservations in Wisconsin, and contrary to expectations, the Indians turned out in large numbers to be examined. On the Oneida reservation, it is estimated that there are about 1,500 persons in all, both Indians and whites. Nearly 17 per cent of these were voluntarily examined.

Phoenix Clinic

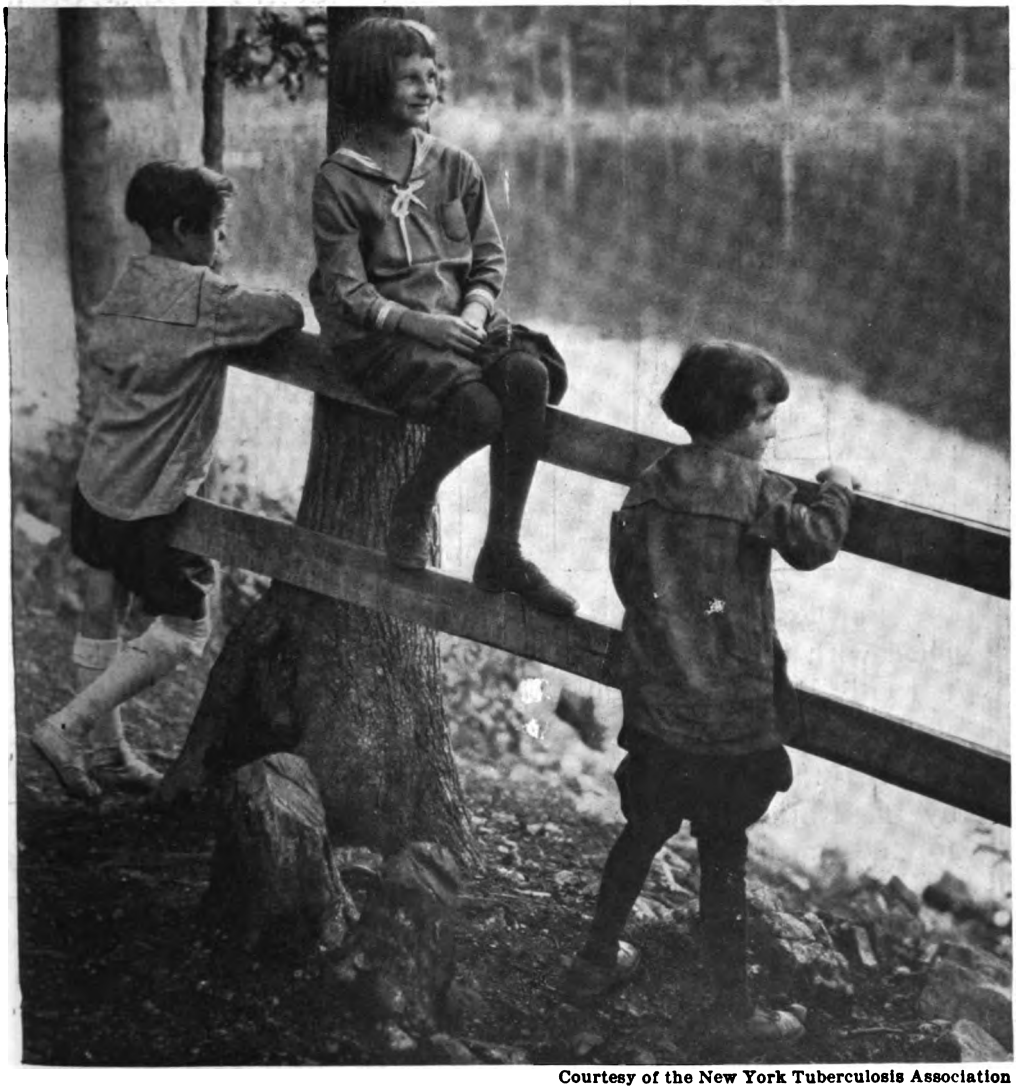
Seven hundred twenty-nine cases, representing 593 families were under the care of the Maricopa County (Arizona) Anti-Tuberculosis Society and the free clinic during September. The report of the nurse in charge shows that in addition to the clinic work the nurses made 327 calls, while there was a total attendance of 313 patients at the clinic.

Personal Notes

Miss Irma Collmer, Secretary of the St. Joseph County Anti-Tuberculosis League at South Bend, Indiana, has resigned to become Chief of the Medical Social Service at Ft. Bayard, N. M., under the Southwestern Division of the American Red Cross.

Dr. Walter S. Broker, Superintendent of the Ottertail County Sanatorium at Battle Lake, Minn., has been appointed to the U. S. Public Health Service at Minneapolis. Dr. Broker will be succeeded by Dr. W. Berry.

JOURNAL of the OUTDOOR LIFE



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Say It With Seals

By Dr. F. J. Sampson, Creston, Iowa

There's use perhaps for the Christmas tree,
The "public" sort, where things are free,
For the "pore and needy" we gather there,
To prove to them that Christians care.

But when I think of homes I've seen
In the one and fifty weeks between,
Where stricken children fought for breath,
A losing fight with cruel Death;

And then at the close of 'Quarantine"
When snow was gone and grass was green,
The romping children—only three
Remain of five that used to be;

I wonder if we realize
How cruelly we stigmatize
The gospel of the Nazarene
When we forget the time between.

So why not use the "Christmas Tide"
And float a budget to provide
A service for the time between,
In memory of the Nazarene?

Then children that are crucified
By Prejudice and Greed and Pride,
Would be at play when grass comes green
And know what Christmas "doings" mean.

And so instead of fragrant weed,
Or books you might not care to read,
My greeting speaks in seals that mean
A SERVICE FOR THE MONTHS BETWEEN.

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The Detection and Care of Tuberculous School Children in Minneapolis

By J. A. MYERS, Ph.D., M.D., Medical Director, Lymanhurst School for Tuberculous Children, Minneapolis, Minn.

Editorial Note: *The accompanying article by Dr. Myers is an interesting summary of an experimental piece of work he is carrying on in the city of Minneapolis that should prove of value to other cities. A detailed account with the medical and social findings was published in the Lancet Clinic, May 15th. This number of the Lancet Clinic contains a series of articles by prominent tuberculosis and other specialists dealing with the problem of tuberculosis in children, particularly as it related to the Lymanhurst School.*

THE "sickly" child who, in the "good old days," had to be taken out of school, the tuberculous and pre-tuberculous boy or girl, at one time admittedly destined to abbreviated schooling, ill health and an early grave—these are coming into their own, slowly but surely.

Among the 70,000 school children of Minneapolis there have been the usual alarming percentage who, through tuberculosis, have had to give up their education, at least temporarily, often permanently, who were physically handicapped for life, who in some instances did come to an early grave. To give these boys and girls their chance in life, the city's school and health authorities recently added to the community's anti-tuberculosis equipment the Lymanhurst school for tuberculous children. The Trudeau school for so-called pre-tuberculous children had already been in operation for nearly ten years. These two schools, together with the children departments of the Minnesota State Sanatorium and the Hennepin County (Glen Lake) Sanatorium, constitute the primary opportunities for combatting the White Plague among Minneapolis children.

The State Sanatorium and the Glen Lake Sanatorium are equipped to care for nearly 100 tuberculous children. In these places the children receive excellent sanatorium care, and when able physically, are permitted to attend school there.

The Trudeau School in Minneapolis is equipped to care for 96 children. Most of the children sent to this school are below par physically or give histories of definite exposure to tuberculosis, although they have no demonstrable tuberculosis. These children are given rest periods, nourishment, and an abundance of fresh air along with their regular school work.

The Lymanhurst School for tuberculous children provides care for children with demonstrable tuberculosis. It is equipped with the most modern instruments and apparatus used in detecting the disease as well as those used in the general and special methods of treatment. No provision is made, however, to care for the active, strictly hospital case in this school for more than a few weeks. If at the end of that time the children to not respond to treatment, they are transferred to one of the sanatoria. Surgical cases are accepted and are treated by the orthopedist until such time as they can be admitted to a sanatorium if sanatorium treatment is necessary. Otherwise they remain in the school under his care.

Tuberculosis being a germ disease is spread by its hosts. Therefore, its control depends to some extent, at least, upon locating and caring for the hosts. In Minneapolis the school physicians, nurses and teachers carefully observe the children for any manifestations of tuberculosis. To the list of names of children who show symptoms of tuberculosis, they add the names of those children who have been exposed to tuberculous relatives or friends. All of these children are requested to be examined. For such examinations, the nurses take the majority of the children to the special clinics for tuberculous children operated in connection with the Lymanhurst School, the General Hospital Dispensary or the University of Minnesota Dispensary.

In the examination of a large number of suspected tuberculous children many are found whose symptoms are not due to tuberculosis, but to some other condition. Such children are advised to have the non-tuberculous condition corrected and to return to their regular school. Again, there are many children who have recently lived with tuberculous relatives, and others who are below par physically, but in whom tuberculosis cannot be demonstrated. Such children are sent to the Trudeau School where they are given special care in an attempt to prevent the development of tuberculosis in their bodies.

There are still many other children who have demonstrable tuberculosis. The children in whom the disease is obviously of an active and progressive nature are immediately sent to one of the sanatoria. All others are sent to the Lymanhurst School for special study and care.

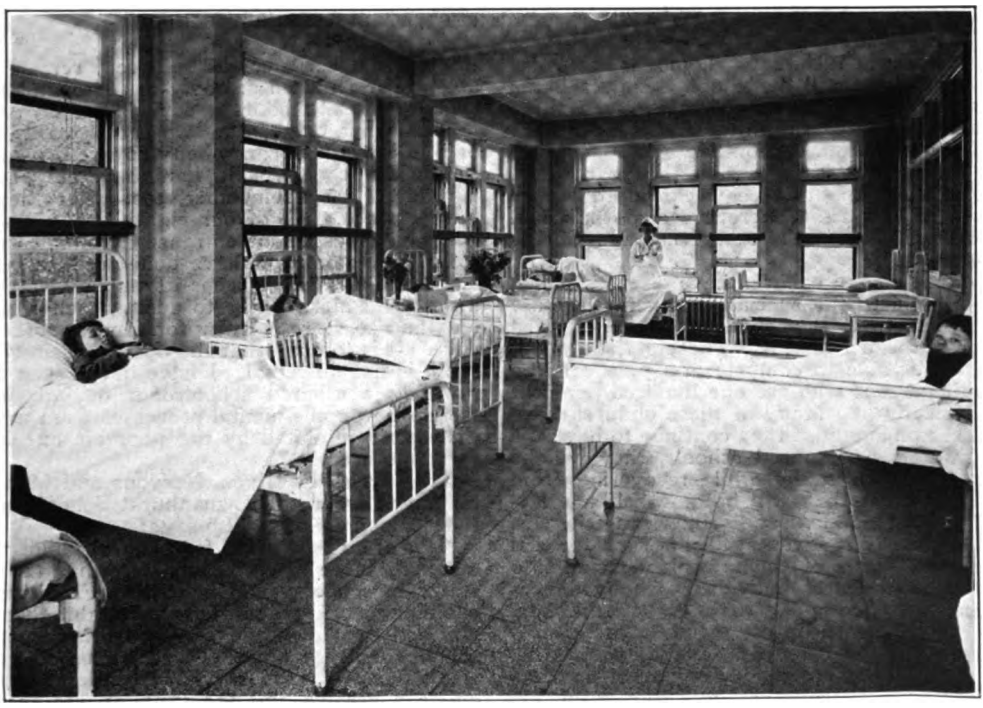
The consulting medical staff of the Ly-

manhurst School consists of approximately twenty physicians representing various medical specialties. Each child is examined by all the specialists and the reports are recorded on one chart. After all examinations are complete, one may find on this record, in addition to x-ray and laboratory reports, the condition of the skin, eyes, nose, teeth, mouth, throat, lungs, heart, stomach and intestine, bones, joints, blood, lymph nodes, as well as general development, mental status, etc. In treating tuberculosis, it is a tremendous advantage to know the condition of the principal organs of the body besides those invaded by tubercle bacilli. If disease is found to exist in any of the other organs, its eradication will aid greatly in treating the tuberculous organs. For example, a high percentage of the children in the Lymanhurst School have been found to harbor infections in the mouth, teeth or throat. The poisons from these infections being absorbed into the blood stream unquestionably reduce their vitality. In many cases, rapid gains have been observed after the eradication of such foci of infection. In other cases, the skin specialist has observed signs of congenital syphilis, and further examination usually reveals the presence of this disease. Such cases generally show rapid improvement soon after anti-syphilitic treatment is instituted. One might cite a great many similar cases, all of which prove that, in the treatment of the tuberculous patient, the organs which the tuberculosis involves must not be treated alone, but the entire body must be taken into consideration and an attempt made to correct every condition that tends to reduce the patient's physical fitness.

The children who are advised to enter the Lymanhurst School are without fever or other cardinal symptoms of active tuberculosis. In the school, however, it is not uncommon for such symptoms to occur. The children who develop these symptoms are immediately made bed patients in a small observation ward in the school. The children whose symptoms prove to be due to tuberculous activity are sent to a sanatorium for treatment, while the others are later returned to their usual class work.

The children who attend the Lymanhurst School receive considerable special attention. Upon their arrival at the school building at 8.30 each morning they are given a small amount of hot cereal. At the noon hour they receive a well balanced meal, and before leaving the school in the afternoon, a small amount of cereal is served. Immediately after the noon meal each child rests an hour in bed before class work is resumed. The school day ends at 3.30 and the children then return to their homes for the night.

A considerable amount of time is spent in teaching the children the proper method of using the tooth brush. A brush is then



ALL NEW PATIENTS AT THE LYMANHURST SCHOOL ARE PUT UNDER OBSERVATION IN THIS WARD

MIXING STUDIES WITH "TEMP-STICKS" AT LYMANHURST SCHOOL

given to each child for home use and another to be used at school. Shower baths are provided and each child is given three baths per week in winter and a daily bath during the summer months.

The school is in session the year round except for about three weeks in the latter part of August. There are also the usual holidays, such as Thanksgiving and Christmas.

Many of the children have diseases which will yield to the special treatment they are receiving; yet their bodies will be crippled and deformed for life. Therefore, they will never be able to compete in a physical way with persons who are one hundred per cent physically fit. Many of these children have alert minds; and if they continue to have the advantages of special schools, they will be so trained mentally while recovering from disease that they will become self-supporting, loyal and useful American citizens. Without the advantages of such special schools, many of them would develop into illiterate, helpless individuals wholly dependent upon the public. It is remarkable how such children progress mentally in spite of their physical handicap. In this connection I wish to quote Dr. H. Longstreet Taylor's statement concerning the children in the St. Paul Preventorium:

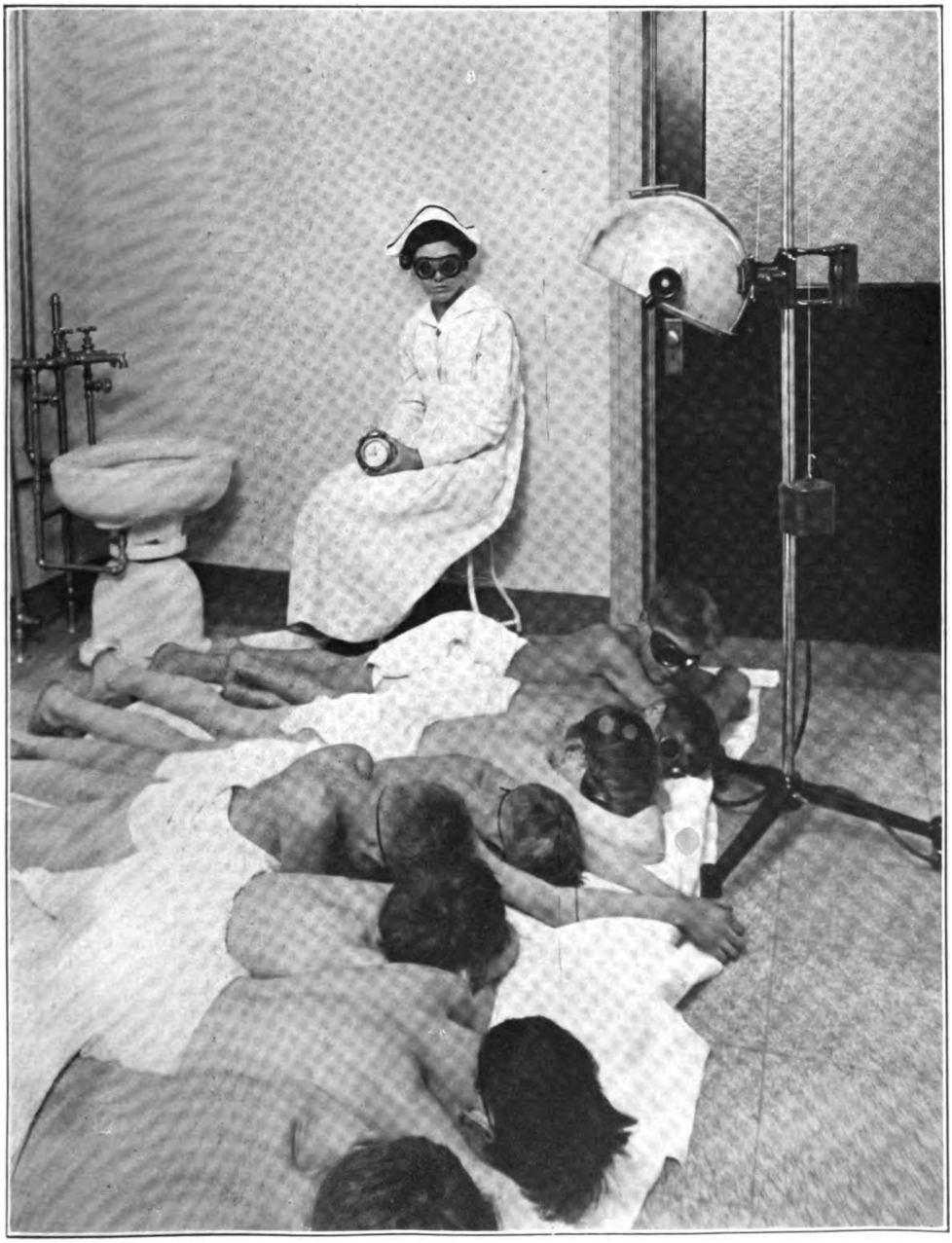
"As to the amount of school work that these children in the preventorium are able to do, our experience has been very remarkable. Our children are only in the open-air schoolroom two hours a day, and it is not unusual for a child to do two years' work in one. Many of them, when they return to the public schools in St. Paul, have skipped a grade. They remember, too, what they have learned. All of our eighth grade students have passed the entrance examinations to High School and have done well there. The open-air school keeps its pupils always bright and alert, ready to accept each new idea and to store it away for further reference. It is too bad that the open-air schoolroom is not universal. I have never seen a properly ventilated schoolroom or one in which the pupil's mental processes were not dulled and inhibited by the poor air one is forced to breathe."

Dr. Charles E. Nixon, Nervous and Mental Specialist in the Lymanhurst School for tuberculous children, also says:

"It is of interest that I found these children distinctly more defective mentally than their status in school would indicate. From my examination, I would have thought these children would grade distinctly lower in school than they have. The explanation for this is possibly the special attention these children receive and the type of life they live in the school. I have no doubt that periods of rest and feeding make it possible for these children to show distinctly more

advance in their school work than they otherwise would."

There is no important phase of the work among tuberculous children than their health education, with particular reference to the control and prevention of tuberculosis. It is remarkable how quickly the children grasp the good health ideas. One of the most encouraging aspects of our work is that they are at the age when well-made mental impressions are enduring. The teachers, nurses and physicians take advantage of these facts, and make the most of every opportunity to impress upon the children the manner in which the spread of tuberculosis may be prevented and the measures necessary to



BEING "LAMPED" AT LYMANHURST SCHOOL

heal the very disease from which they are suffering. This is done not only in personal conversation, but also in short talks to various groups. An effort is made also to interest the older children in suitable literature pertaining to tuberculosis.

Most of the parents manifest intense interest in the welfare of their children. Consequently, they crave information concerning tuberculosis. Therefore, the nurses who go out to investigate and discuss the home conditions find the parents very co-operative. The parents are urged to visit the school frequently, and they are occasionally invited to attend special lectures on tuberculosis. Organizations, such as churches and fraternal orders, often become interested in certain children enrolled in the school and their members visit the school, seeking information concerning the treatment and control of tuberculosis.

It is unfortunate, indeed, that the public usually looks upon tuberculosis as an incurable disease. However, schools for tuberculous children probably have greater opportunities to enlighten the public concerning this disease than any other institution. It is extremely pathetic to see suffering and crippled children. Often the public interest can be aroused by calling attention to such conditions resulting from tuberculosis. The school then serves as a laboratory where one may demonstrate that the disease may be controlled and many of its victims released.

For example, one of our children, seven years old, developed early tuberculosis of the spine. No marked deformity had appeared and yet all phases of examination revealed unmistakable tuberculosis. The parents of this child were informed of her condition and it was pointed out to them that, if special treatment were not instituted and continued over a long period of time, there was a probability that she would develop a hunchback deformity such as certain other children in the school had developed before treatment was begun. To add to the pathos of this case, the mother, who was manifesting such intense interest in her only child, suddenly became ill with tuberculous meningitis and died four days later. All the acquaintances of this family, and many other persons who incidentally learned of the case, are eagerly watching the outcome. This child is making splendid recovery and her case is a striking demonstration to many persons of what may be accomplished in the treatment of early tuberculosis in children.

Schools and other institutions for tuberculous children offer unexcelled opportunities for the scientific study of tuberculosis. Here one may observe children with primary or initial disease. The effects of such factors as age, nationality, and social status upon the course of this primary disease offer problems upon which much time and study may be spent with great profit. Other problems equally profitable for study are the effects of tuberculosis upon the mental status and the various non-tuberculous organs of the body as well as the effects of other diseases, such as measles, scarlet fever, tonsilitis, and abscessed teeth upon the primary tuberculosis.

In schools for tuberculous children, particularly where high school pupils are admitted, one may follow the course of the primary disease into the age when the adult type of tuberculosis becomes prevalent. It is then possible to draw some deductions as to the relations existing between the two types of disease and the effect of one upon the other.

It is indeed costly to provide, equip and maintain special schools for tuberculous children, but it is infinitely more costly to the individual and to the public at large to fail to provide for them. On this point, I cannot refrain from quoting Dr. Allen K. Krause:

"The prevention of adult tuberculosis which quasi therapeutic institutions, like the open-air school, or schools adapted to the peculiar needs of delicate children, can do is incalculable. They will repay any amount of development. What children themselves assimilate from such movements as that of the Health Crusade cannot be estimated; but the conclusion is inescapable that thousands will carry precepts and practice, even though imperfectly, through childhood and into later life, and will translate into action and habit, health practices which on occasion will turn the scale in favor of the continuation and permanence of the inactivity of long standing infection."

The work among tuberculous school children has only begun, but there can be no doubt that, through strenuous and honest efforts and co-operation of all individuals and organizations concerned, many lives will be saved, much suffering will be alleviated, many ill and crippled children will be helped to develop into useful American citizens, and advancement will be made toward the ultimate eradication of tuberculosis from the human family.

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The Determination of Bodily Temperature*

By HUGH M. KINGHORN, M.D., Saranac Lake, N. Y.

THE success of rest and exercise treatment is very largely dependent upon an accurate observation of temperature. It is important, therefore, to consider the manner of taking temperature and its diagnostic significance.

When we take temperature solely as a control to treatment and not for diagnostic purposes, a two-hour temperature by mouth is sufficiently accurate. This should begin at 7 or 8 A. M., and continue until 8 P. M. Certain precautions are necessary to obtain correct results. The mercury bulb should be placed as far under the side of the tongue as possible, and not under the tip. Trained nurses and patients frequently put the thermometer under the tip of the tongue, and sometimes obtain an error of one-half degree F. or more. It is advisable also to leave the thermometer in the mouth for four minutes if a three-minute thermometer is used, and for three minutes if a one or two-minute thermometer is used. The temperature should not be taken during or soon after a coughing spell, as coughing causes a temporary rise. It is, therefore, advisable to wait for one-half hour after the coughing has ceased. It is also advisable to wait for one-half hour after drinking hot or cold liquids, and for one-half hour after meals. With the excellent one, two and three minute certified thermometers which we now possess, I see no reason why we should put the patient to the inconvenience of taking rectal temperatures, when we are taking merely routine temperature estimations. It is worth remembering that inflamnıations of the rectum may give high rectal temperatures, so also ulceration of the tongue may give high mouth temperatures. The temperature in the axilla is often higher on the diseased side with tuberculous and non-tuberculous pulmonary diseases than on the sound side. This fact is sometimes of diagnostic value.

When the patient has taken his temperature by mouth every two hours for a sufficient number of days, and has obtained a good idea of the temperature curve, we can allow him to take temperatures at 8 A.M., 2, 4 and 8 P.M.

In the diagnosis of pulmonary tuberculosis we should employ all possible accuracy, and should use, by preference, a two-hour rectal temperature throughout the day. It is only by doing this that we shall detect the slight oscillations that are present in incipient tuberculosis. These temperatures should be taken with the patient resting throughout the day, or at least not sooner than half an hour after being at rest, and should be taken in the reclining posture. A morning temperature of 36.9° C (989.4° F), and an afternoon of 37.4° C (99.3° F) may be assumed as a normal bowel temperature. In some patients it never rises over 37.° C (98.6° F) and amounts only to 36.3° C (97.3° F)—to 36.5° C (97.7° F) in the morning.[1] The above-mentioned limit is occasionally exceeded in women, due to the influence of the genital organs and the menses.

The course of temperature is frequently disturbed in pulmonary tuberculosis. The cases are very few in which the disease develops absolutely without fever. This may, however, disappear temporarily, so that the patient seems to be free of it during the investigation. V. Leube[2] and F. Moeller[3] are of the opinion that normal temperatures in incipient pulmonary tuberculosis are very rare. It frequently shows marked oscillations which are the expression of a particular susceptibility of the heat radiating centers. With the characteristic instability in tuberculosis the bodily heat increases about one degree or more on slight causes, such as after meals, after writing a letter, after washing and breakfasting in the morning—even if this is carried out in bed. It is a noticeable fact that these slight increases in temperature, particularly when they occur after meals gradually diminish, and finally disappear as the patient gets well. Slight increases of temperature after meals and from these other above-mentioned causes should make us always suspect an active tuberculous focus. It is worth mentioning that with some very anaemic patients the first morning temperature is exceedingly low, and that the maximum of the day is less than 37.4° C (99.3° F) rectal (Brecke). It is therefore important to measure the temperature immediately after wakening. In other cases the thermometer shows a more even increase, which is independent of particular causes. This increase, which usually occurs during the afternoon, occasionally in the evening at 8 or 10 o'clock, reaches a maximum which is more or less above normal.[2] Occasionally large variations are entirely lacking, but the temperature is constantly somewhat increased and even in the morning is not below 37.° C (98.6° F). We sometimes see an inverted type of temperature—the typus inversus—and with such the prognosis is considered

*Read by title at the 18th annual meeting of the National Tuberculosis Association, Washington, D. C., May 4 to 6, 1922.

to be unfavorable. With this the maximum temperature is observed in the morning, and the minimum in the afternoon and evening. It is quite possible that these patients have temperature throughout the night, and that the high morning temperature is simply a hangover. These various forms of temperature speak very strongly for a tuberculous pulmonary disease. We must remember, however, that slight increases in temperature may appear in other diseases, such as chlorosis, ulceration of the stomach, pus deposits in the accessory sinuses of the nose, pyelitis, non-tuberculous bronchiectases, syphilitic liver diseases, inflammations of the female genital organs and the insidious infections proceeding from the tonsils. We must also consider the possibility of a purely nervous or hysterical fever. I very frequently see young girls who are supposedly suffering from pulmonary tuberculosis. The physical examination and the x-rays fail to show signs of pulmonary disease, but these patients have a markedly disturbed sympathetic nervous system. Many of them have pronounced symptoms of hyperthyroidism. A considerable number have slight elevations of temperature, and some of them react very actively to a Pirquet tuberculin test.[2] This of course only indicates that there is a tuberculous focus somewhere in the body, but does not indicate its site. The very active reaction, however, may perhaps signify a pathologically active focus of tuberculosis which may possibly be causing the symptoms.

As a sign of the instability of tuberculous temperature Penzoldt[4] found that it increases with otherwise fever-free tuberculous patients more strongly and more lastingly after a test walk of an hour than with healthy individuals, namely to 38.° C (100.4° F) and over (Penzoldt's symptom). This observation has been confirmed by others, but its diagnostic value is very much restricted because patients convalescing from acute diseases, chlorotics and obese patients show similar abnormal elevations after exercise. Penzoldt also mentions this. Temperature may also increase to 38° C (100.4° F) after a short march.

In tuberculous and also in healthy women increases of temperature appearing before the menstruation are often markedly pronounced.[5] The temperature is rarely elevated during or after the menses. In tuberculous women this increase sometimes begins twelve or even thirteen days before menstruation.[2] Increased râles over the diseased lung, spitting of blood, and pleuritis frequently occur in association with it. These symptoms may quickly pass. In other cases the menstrual increase of temperature signifies the onset of a permanent and sometimes fatal relapse of the condition. These premenstrual increases of temperature in tuberculous women, and also in women who are suspected of having tuberculosis, often disappear as the patient gets well. The temperature of a woman who is suspected of tuberculosis should not be considered as normal until it has been thoroughly established before and during the menses. Absence of a menstrual increase does not exclude tuberculosis.

We should constantly remember that the temperature in old and extensive, as well as in beginning tuberculous processes, may show a completely normal course for weeks and months at a time. While, in most cases, the demonstration of fever is important for the diagnosis, yet its absence does not justify one in excluding the existence and progression of pulmonary tuberculosis. I have quite often seen patients in good physical condition and complety free from fever have a slowly progressing pulmonary phthisis.

Pronounced morning remissions of fever with high evening temperatures, accompanied by night sweats, frequently occur in serious and advanced cases of pulmonary tuberculosis. This is the hectic type of the disease, and signifies rapid destruction of tissue. Continued high fever appears chiefly in extensive pneumonic processes. In seeming health, caseous pneumonias, disseminated broncho-pneumonias and peribronchitis, as well as acute miliary tuberculosis may set in with high fever, after material which contains tubercle bacilli has become disseminated through rupture into the air passages or blood-vessels of a tuberculous focus unobserved up until then. Should the rupture occur into a blood vessel an hemoptysis may occur, and there may be dissemination of disease over a large area of the lung.[2] In these forms of the disease the outlook is always very serious, and there is often a rapid termination.

Fever may also be caused or modified by mixed infection of the tuberculous lung by other pathogenic micro-organisms. Infections of the lung with staphylococci, pneumococci, influenza bacilli, streptococci and other pathogenic germs occasionally lead to an acute flare-up of a pulmonary tuberculosis which has been unobserved and slowly progressing until that time. The disease may only then be detected. Such infections may also interrupt the healing of a lung, or accelerate the destruction of a lung which has extensive disease. Every year we see numerous examples of the harmful influence which the influenza epidemics have on the course of patients with pulmonary tuberculosis. As a rule, however, it has not been established that other bacteria are more responsible than the tubercle bacillus for the fever of pulmonary phthisis. Sorgo[6] very correctly states that we should not see the work of foreign microorganisms in every acute exacerbation, in every intermittent fever, in every pneumonic focus, and in every cavity

formation. "Though the pus-producing organisms as a result of their rapid growth may produce pneumonic consolidations in which the tubercle bacillus does not participate at first, the resulting caseation is caused by the presence of the tubercle bacillus." Cornet.[7] In a case examined by A. Fraenkel[8] of disseminated tuberculosis with high fever as a result of haemoptysis, accurate examination was made at the post mortem for mixed infection, and no diagnostic point was found for it. Schröder,[9] Meissen[10] and Koge[11] have shown that chronic mixed infection is comparatively rare, and that no connection exists between the presence of pathogenic microorganisms in the sputum and a certain type of fever. If tubercle formation in pleurisy, peritonitis, meningitis with fever, is often associated with high fever, why should this be otherwise in the lung? Moreover, the fibrous form and the closed incipient cases do not usually course free from fever,[12] F. Moeller,[13] says that the tubercle bacillus may induce fever without mixed infection, and the caseous tissue degeneration, which is the basis for cavity formation, is, according to him, solely conditioned by the tubercle bacillus and its toxins.

We thus see how very important it is to get an accurate knowledge of the course of temperature. This is of the greatest value not only in the diagnosis but in the observation of the case.

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Curing

By LAURA AGNES MERCURE

Twice I've watched the early leafage,
Of each shrub and plant and tree.
Watched the greening of the hillsides,
Listened to the droning bee.
Welcomed back each pair of bluebirds,
Heard the robin's first sharp call,
And the grackle's morning chorus
From the spruce tree dark and tall.

Twice I've witnessed birth of summer,
Watched its glorious growth and bloom,
Days of warmth and glow and gladness,
Merging into fall too soon.
Twice I've seen the brilliant colors
Spread o'er hill and mountain side;
Watched the leaves fall from the shade trees,
By the winds spread far and wide.

And one winter too I've listened
To the wind's shrill howl and blast,
Or without my wide porch windows
Watched the snowflakes falling fast.
Now, once more are cold winds blowing
Winter all about I see;
And once more I'm watching snowflakes
For I'm "curing" for "T. B."

Bone and Glandular Tuberculosis in Children*

By DR. JOHN F. O'BRIEN, Superintendent The Seaside, Niantic, Conn.

IN order to realize what a change has come over all our ideas in regard to the proper treatment of tubercular cervical adenitis, try to imagine with what scorn that man would be treated, who twenty years ago would have the temerity to treat tubercular abscesses without the use of the knife. At that time, the wisdom of removing diseased glands was no more questioned than the wisdom of removing a diseased appendix. There might be some difference of opinion as to the proper time to operate; whether it was good judgment to attempt a radical operation with glands already broken down; or whether to merely drain, and do the more complete operation when the discharge had ceased. Other numerous, minor points of controversy there were, to be sure, among the surgeons of that time, but none as to the advisability of some kind of operation.

Although, to-day, we still have our advocates of radical operation, they are in the minority, and are rapidly diminishing, nor do they urge surgical measures with the same insistence as of old. The feeling that the lesion in bone or gland is merely a local manifestation of a constitutional disease, is awakening in the medical consciousness, and with it a realization of the utter futility of attempting a cure by the removal of the most obvious symptoms.

For a great many years the medical world had wondered at the mysterious cures of bone and glandular tuberculosis, that every day were occurring at the French seaside sanatoria, more particularly at Berck. Was it something in the air, or in the water, or perhaps a combination of both? Was it the result of injections into the disease areas, so universally practised by the French surgeons, that caused the swollen glands to return to normal, the running sores to dry and heal, the pain of bone disease to stop, and the motion to return in diseased joints? Or was it because of the more efficient fixation, as practised by Calot, with his nicely moulded plasters so snugly fitting the part involved? What was the important factor and could the same results be attained elsewhere? Perhaps, as some suggested, it was the sun's rays, whose healing power was intensified by reflection from the ripples on the water and from the sand on the beach.

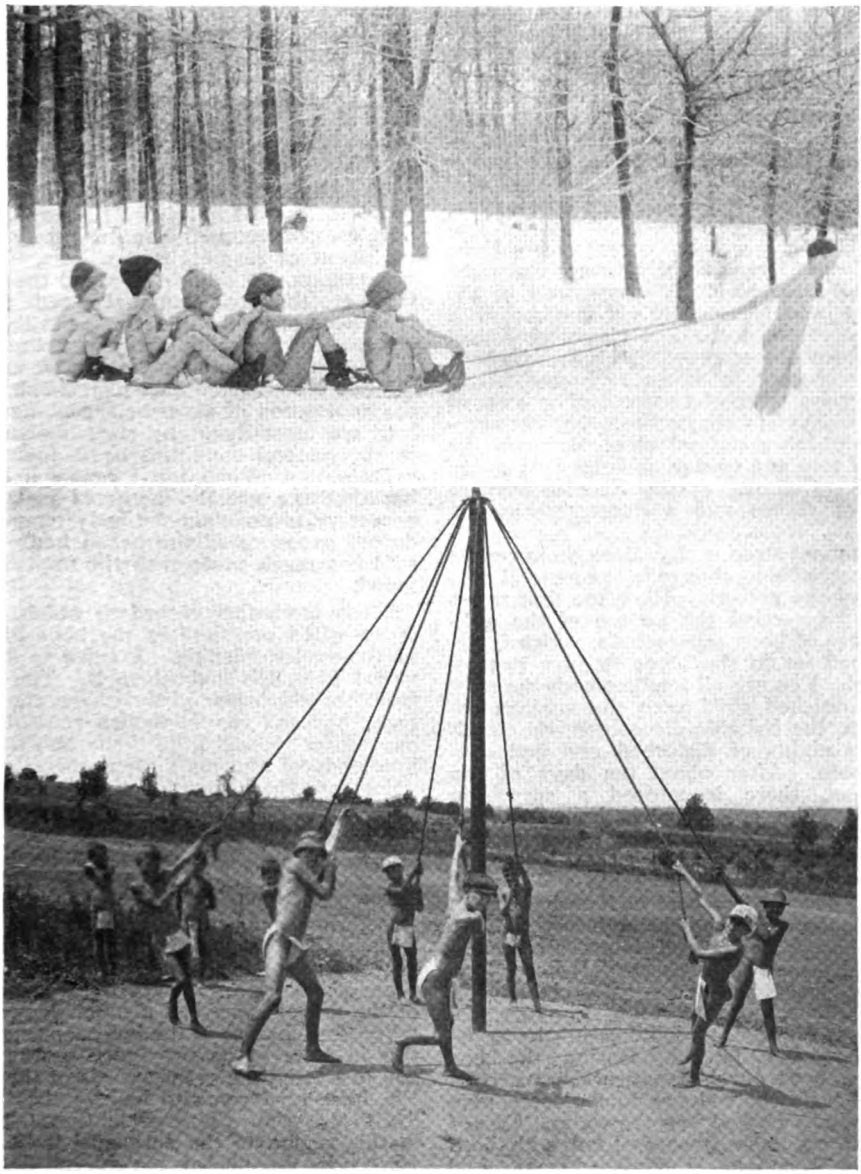
Rollier then showed that, many miles from the ocean, with snow-clad mountains on all sides, using braces, instead of nicely moulded plasters, and disregarding the injections of the French surgeons, equally good results could be attained. This fact confirmed the belief that sunlight was the most important element in the cure. Rollier made a further important contribution to the study of heliotherapy, when he observed that his patients failed to improve, if the sun treatment was given on glass inclosed porches instead of in the open. Therefore, he attributed the therapeutic benefit to the rays on the ultraviolet end of the spectrum, inasmuch as those are the rays which fail to penetrate ordinary window glass.

Another factor in favor of this belief is the popularity and success of the snow-clad mountains and the seashore in the treatment of surgical tuberculosis. Conditions prevailing in both places favor a comparatively greater amount of the ultraviolet of chemical rays. The direct rays of the sun are no different in those localities than in others, except possibly more intense, because of the greater clearness of the atmosphere. The essential difference, however, is in the character of the reflected rays. The longer heat rays are quickly absorbed by the water at the shore and by the melting snow on the mountains; while only the rays lower down in the spectrum are reflected.

Along the eastern shore of Long Island Sound is a little bay, fringed by a delightful stretch of sandy beach, and having to the southeast an unobstructed view of the great Atlantic. Here Connecticut has made a profession of faith in heliotherapy. Here, even when the ground is covered with snow and the ponds with ice, naked children, who are winning their uphill fight for health, may be seen romping on the beach or swimming in the ocean. Even the school sessions are held in the open, with an overhanging cliff shutting off the cold north winds. Our children not only wear no clothing, but upon admission, their clothing is taken home, with the exception of shoes, ear caps and sweaters. During the past winter, the sweaters were not even taken out of their closets.

In spite of their outdoor life, and in spite of the fact that they wear no clothing, since the institution was opened in December of 1919, there has not been a single case of pneumonia, a single severe case of spasmodic croup, nor even a severe case of bronchitis. We have not even seen among our children an instance of middle ear disease that was not present on admission. According to our experience, exposure of the entire body to the weather, during both summer and winter, not only does not cause colds, but actually is a most effective means of prevention. It is, I believe, now generally acknowledged that those ailments are the

* Read at the Medical Session of the New England Tuberculosis Conference at Augusta, Maine, on Thursday, September 28th, 1922.



CLOTHES DON'T MAKE THE CURE

result of faulty elimination of heat, a condition best brought about by covering the body with a heavy layer of clothing.

In a very short time our little patients learn to enjoy the outdoor life and become as brown as Indians. So intense is the tan that a woman visiting in our vicinity for the first time, and seeing the children playing on the beach, asked if there were any white children in the institution! That same woman, on going home to Massachusetts, told how she saw naked children running on the beach in winter, and a friend of hers thought that a great number must die from exposure. She then remembered that she hadn't asked how many died from the cold and wrote us a letter for the desired information.

Heliotherapy, we have found at the Seaside, increases weight, cures tuberculosis, and in a most remarkable manner stops the suffering from pain. A comparison of the increase in weight among our children, with children of the same age attending school throughout the country, showed a remarkable difference in favor of those whose bodies were exposed to the healing rays of the sun. Weight charts show that the average gain for a normal child, between the ages of two and twelve, is from four to six pounds. Children at the Seaside average gains of eleven and a quarter pounds a year.

Even more striking than the gain in weight is the astonishing change in the general condition of the patient. Allow me first to recall to your mind the picture of the ordinary case of bone tuberculosis, which is being cared for in the home or in a general hospital. You are all familiar with the pale, undernourished child with the anxious expression, the irritable disposition, the result of long nights of disturbed rest and constant pain. After about ten days of sun treatment, there is noticed a surprising change. The appetite has improved, the skin has taken on the glow of health, the expression is happy and contented, the disposition is no longer irritable and fretful, and the sleep is long and undisturbed.

While the recovery is being brought about, the diseased bones and joints are immobilized by means of plaster of Paris bandages or braces and the crippled children, as well as those suffering from glandular disease, are allowed to indulge in the usual activities of childhood. During the fine weather, even our bed patients are carried to the beach where they attend classes, play in the sand or crawl into the water. One of our patients, who was admitted with both lower limbs completely paralyzed from spinal tuberculosis, actually learned to swim, while the power was coming back into his limbs, even before he was strong enough to walk. Although he still wears a large Calot jacket, during the baseball season, he demonstrated his skill as pitcher. The only boy he has been unable to strike out, is a little fellow who has one limb encased in plaster of Paris, and who, when he comes to bat, is able to support himself with one crutch and still use both arms for a full swing at the ball.

Although most of our children on entrance are suffering from an active disease and complaining of intense pain, it is most unusual for them to have any pain after they have had the sun treatment for about ten days. One boy of rather unusual intelligence who could give a fairly accurate description of his symptoms before admission, stated that for a year and a half he had been in constant pain day and night. After about ten days of exposure to the sun, his pain completely disappeared and has not since recurred.

In addition to heliotherapy during recent years various other forms of radiant energy have gained more or less popularity in the treatment of surgical tuberculosis. The x-ray, radium, the Alpine rays and the Quartz lamp are the most commonly used. Claims have been made for these remedies that they accomplish the same thing as heliotherapy in a much shorter time. Even if we are willing to grant that swollen glands subside on the application of those remedies, nevertheless, we must deny any such improvement in the general condition, as is found with heliotherapy. Then, too, I cannot help feeling that the greatly increased metabolism necessary to maintain the body temperature during exposure of the naked body to the cold has much to do with the improvement found.

There is another procedure which, I fear, is too often practised in the hope of relief in tubercular adenitis. I refer to the removal of tonsils and adenoids. The report from the Rochester clinic where about sixteen thousand tonsilectomies were done in one winter showed little if any improvement in glands of the neck after operation. In going into the history of our own cases we have found that a large percentage of them have had the tonsils removed without any benefit, that I have been able to observe, and with a decided aggravation of symptoms in many of them.

Before closing, there are just a few words I should like to say about the surgical care of tubercular abscesses. For a great many years it has been observed that tuberculosis of the dorsal spine had a much lower mortality than disease in the lumbar region, and this in spite of its proximity to the lungs and heart and the great vessels of the chest. We have now come to believe that this is due to the relative inaccessability of abscesses in this region to the surgeons' knife. Abscesses in the lumbar region, on the other hand, have a shorter distance to burrow, are usually quickly opened and the discharge continues, all too often, until the death of the patient. If left alone, most of those abscesses would absorb. If they threaten to rupture, aspiration through healthy tissue and as far away from the most prominent part of the abscess, is the most satisfactory treatment.

The Exam.

By MAURICE NEILLY

Ding! Ding! Dong! - - Ding! Ding! Dong!

It is the first time in the shack that I hear the joyful notes of the bell which sounds to my ears in the perfumed air of a summer morning.

And that gay peal, that cheerful music is the réveillé at the Muskoka Sanatorium, in which institution I have been a patient since last night.

Ding! Ding! Dong! - - Ding! Ding! Dong!

Hurry up! Let us follow the rule in detail. It is the only way to get better—to get rid of that terrible disease—T. B., Tuberculosis, Consumption in plain language.

First the morning shower bath—this reminds me of the Regiment, where, under the eye of the day officer, each soldier had to go through his daily ablutions. I have lost the habit, and I admit that it is with a timid hand that I turn the cold water tap.

Come on! Have courage! It is done this time. Two minutes! Brr! . . . It was cold. Now a good rub, in order to re-establish promptly the circulation. What a salubrious sensation!

Well, here are the stragglers—those who wait until the last minute to get out of bed, and when they enter the dressing-room I am ready to go out and breathe the fresh air before breakfast. I will certainly do honor to the bill of fare.

Ding! Ding! Dong! - - Ding! Ding! Dong!

It is the signal for the first meal. In the dining-room (on small tables, as in the King Edward Hotel), the breakfast is ready, and pretty waitresses, well trained, await your order. The one who is in charge of my table has a hard task, believe me, and I can read in her eyes that she is asking herself if she has not before her the ogre of the fable who scares the little ones.

Even yesterday, in Toronto, I could not eat anything. Here I am ready to devour everything. It is a good sign certainly. Let us eat, since it is a part of the program! A part of the "cure!" Listen! A bowl of porridge, two fried eggs, a slice of bacon as large as my hand, accompanied by an incalculable quantity of toast, composes my breakfast.

Bing! Bing! This time it is a gong that gives the signal of the end of the meal.

Everybody rises and each one goes towards his own shack to fill up the second part of the program—get to bed in order to digest slowly and thus give to all the digestive organs the minimum of work to do.

I am hardly at the bottom of the stairs when a gentle nurse stops me and invites me to present myself at eleven o'clock sharp in the examination room. "Very well, nurse, I will be there"—and I feel happy in thinking that in a couple of hours I will know exactly my fate.

Well, I am once more between the sheets, breathing the health-giving, invigorating air of beautiful Muskoka, while building castles in the air to banish my trouble.

Ding! Ding! Dong! - - Ding! Ding! Dong!

The bell—the gay sound again. This time it is the end of the compulsory rest. I must have slept! So much the better! The lungs heal while one sleeps.

Quietly I arise and dress briefly, for in a few minutes it will be in Father Adam's costume (or near to it) that I will have to present myself; and with a quick step I direct myself towards the examination room, where another nurse shows me the door of a small place where I have to undress.

In one turn I am ready, and at the doctor's call I step into the next room—like a boxer into the ring—naked to the waist-line.

This room is almost as bare as myself. A table on which there are two inkstands—one for red and the other for black ink, two penholders, a portable sputum cup, and pieces of cheesecloth for patients to cover their mouths when coughing. In the center, a chart with a drawing in red ink representing the lungs back and front, a chair, and a stool complete the furnishing of this room, worthy of a Trappist monk.

The doctor installs himself comfortably in the chair—and I conclude that the stool is for me, and I sit down.

Immediately two eyes are fixed on me and quickly observe all the parts of my anatomy, as does a horse dealer on the market-place before purchasing a horse. It is the taking in of everything at a glance from the head to the waist. Then the stool turns brusquely on its pivot, and this time it is my back that faces the disciple of Hippocrates—my skinny spine that suddenly appears to him.

A turning of the stool puts me again in front of the master. The questioning starts. "How long have you been sick?" "Have any of your family ever had tuberculosis?" etc., etc., etc. It is a real confession that I have to make, and I submit myself to the questioner willingly, understanding well that my duty is to enlighten the man of art and science.

All at once I feel myself muzzled—a cheesecloth covers my mouth. I must cough—breathe deeply—inhale—exhale—in a word, a perfect gymnastic of the chest, which permits the doctor (thanks to his stethoscope) to catch the inside sounds. Then tap! tap! tap! A little everywhere; it is the percussion that follows the auscultation, and when it is all over, the doctor knows all the corners of my chest and is able to establish his diagnosis.

(*Concluded on page* 416)

Marketing Articles Made in Tuberculosis Work-Shops

By MISS JESSIE SAUER, Advisory Commission on Tuberculosis Hospitals, St. Paul, Minn.

AS occupational therapists we have experimented with three outlets for the craft products of our work. We have tried giving them away, which is exploiting the patient or the institution or both. We have tried selling them on the sympathy basis, which is exploiting the public under the guise of charity, and we have tried selling them at market value. Aside from the ethical and economic questions involved, the patient's reaction to either of the first two methods has been found unsatisfactory. We have, then, to work out the best method of marketing our product on a commercial basis. To recognize the problem as a commercial one and to solve it on business principles is to subtract the smallest possible amount of time and energy from the therapeutic work of the occupational aide.

The problem becomes especially interesting in tuberculosis sanatoria, where patients remain under treatment for long periods of time and where a wide variety of light occupations makes for the production of comparatively large quantities of articles. Here, also, we have the patient to whom even a slight earning power may mean just the freedom from worry which shall insure an adequately long stay at the Sanatorium and the utmost benefit during that stay. The fact that a product is salable seems to have a distinct therapeutic value to the tuberculous patient; a value, however, which may be cancelled in many cases by the overstimulation of sales made directly by the patient to visitors, with the nearly certain accompaniment of order-taking.

Craft production in occupational therapy for the tuberculous falls naturally into two general types; novelties and uniques made by the patient requiring the stimulus of creative interest, and standardized articles made in quantity by the patient requiring a more sedative daily routine.

Do not the possible markets divide quite as naturally to meet these two classifications?

Many tuberculosis sanatoria find an annual sale at the County Fair, or for Christmas, a satisfactory outlet for craft products of occupational therapy departments. Such sales help to acquaint the local public with the advantages of sanatorium treatment, especially where the sale is conducted by an influential civic organization whose members will "talk it up," and where the occupational aide is present at the sale to answer questions about the work.

Experience convinces the writer that these local sales are our logical market for articles produced in very small quantities. Consider the selling as selling. Plan far in advance. What does the public need? What are its interests and fads? Its spending habits? If the community is small we shall be wise to select as occupational therapy projects, in the various crafts suitable to our patients, such articles as will not compete with those in the local shops. Advertise. Send announcements by mail or messenger. Use the sort of posters people will notice and remember, and do not get posters out at too early a date.

Fortunately, a therapeutic use of color in our projects gives us also the colors which attract buyers. Plan a definite proportion and placing of colors, especially if there is to be a window display. Rely upon a few large articles or masses of color to arrest the attention of passers-by; then upon the fitness and correct pricing of many smaller articles for the bulk of the sales. There is no permanent advantage in prices either under or over the market value.

The small commission shop might offer a market akin to these sales.

There has been some question as to the desirability of wholesale production in occupational therapy. Are the questioners sure that as trained craftsmen we have not assumed for the average patient an artistic creative temperament he does not possess? During several years of occupational therapy in tuberculosis sanatoria the writer has worked with many patients who seemed to re-act better to a repetition of one or two model projects than to the constant introduction of new projects.

Large shops, whether buying outright or taking our wares on commission, supply us with a market for the articles we can standardize and produce in quantity. As we perfect the organization of our workers, we may expect a number of small isolated sanatoria to co-operate in the securing and filling of wholesale orders.

This market, also, has its characteristic needs and tastes. Why not cater to them? The successful merchant is ready to say definitely what kind of baskets, toys or other craft objects are salable and at what prices. If we choose wisely, and avoid overestimating our producing ability—in short, if we prove ourselves a dependable source of supply, the merchant not only provides us with a permanent market for our product but offers us valuable advice and suggestions.

To align ourselves with the experience of business people is to solve our marketing problem efficiently whether it be in retail or wholesale form.

Increments of Growth for Different Types of Children, With Special Reference to Height, Weight and Breathing Capacity Development*

By BIRD T. BALDWIN, Ph.D., Iowa City, Ia.

I WAS very much interested in Dr. Emerson's class, and I think what I have to say will be a continuation and elaboration of some of the points which he has brought out in his address.

Before beginning with my subject I want to pay a tribute to the Sociological Section of the National Tuberculosis Association. Four weeks ago there was a little mother in Iowa who was taking care of three little children that had the "flu." The children soon became well again but the mother acquired the disease, which was followed by pulmonary tuberculosis. That little woman was an intelligent woman, she was a college woman; she sat down immediately and wrote to New York asking for literature on the subject of tuberculosis. In a few days the literature arrived, and in the same mail a nice long, personal letter from Miss Drake, the state nurse at Des Moines, showing the wonderful organization of the sociological work of the National Tuberculosis Association. To-day that mother is in a sanatorium and is doing well.

My point of view is not that of the sociologist primarily but that of the scientist. I am going to tell you just a little about the work of our nutrition classes, and then I am going to ask the question: How do normal children grow? We have heard a good deal about standards of growth for underweight children: how do children grow?

In the first place, we have a nutrition class at the University of Iowa for students. It has been our method to have the experts, the various specialists in the different departments of the University, meet that class and take up the special problems. The students take one course. Then we have the pediatrician and the professor of orthopedic surgery, the professor of nutrition, the dean of the dental college, all of the various specialists, come and give their contribution to the course.

We are interested in nutrition in Iowa. The boys and girls in the State of Iowa are taller and heavier on the average than the boys and girls of the United States. They are considerably taller and heavier than the boys and girls of New York State, for example.

We are interested in tuberculosis. During the past year 8,000 examinations have been made in our laboratories for tuberculosis alone. So my point of view is essentially that of a scientist, who comes to you with an attempt to give some insight into the investigations we are making on the question of how children grow.

You might do a child a very grave injustice to tell him that he is underweight and underheight, unless you are pretty sure of your standards, and unless you are pretty sure of the heredity and the condition under which the child has been living. So we are interested in the normal child and the superior child physically and mentally. We are setting up standards of growth, both mentally and physically.

About twelve years ago I began to investigate the question of how children grow. Since then I have collected data on 2,500 children for a period of ten or twelve years, with some thirty to forty physical traits for each child, making in all about 1,500,000 physical measurements on a limited number (2500) of normal or near-normal and superior children. It is the results of this investigation that I wish to present here today. We demonstrate our problems as far as possible by means of the lantern slides.

(Slide) The first slide is the picture of a boy that we snapped about two years ago, a little boy that was supposed to be normal. He had been to the County Fair and the State Fair in Prize Baby Contests. He was a little heavy for his height. This little boy, since that time, has had tuberculosis, acquired through cow's milk. He has been sleeping out of doors and he is practically well to-day.

(Slide) The next picture gives an illustration of the measuring of the length of a baby. Dr. Emerson has emphasized to-day the relationship between the weight and the height. I am much more interested, to be perfectly frank, in the length of a child than I am in its weight. The weight of the child is one index; it is a sort of thermometer which helps the doctor to understand the present condition of the child. But if you are to know the future development of the child, if you are to know how tall he should be at a later period and how much he should weigh at a later period, it is much more important to know the length of the child at birth or at some subsequent period

* Read before the Sociological Section at the Eighteenth Annual Meeting of the National Tuberculosis Association, Washington, D. C., May 4-6, 1922. This paper was illustrated by lantern slides.

than it is to know simply its weight. We must know the length and the weight both, if we are going to take up the problem of nutrition. We must not only know the weight and the length, but we must also know the age and type of the child.

In the few minutes that I have at my disposal, I am going to try to outline to you briefly first how children grow physically; second, the differences in physiological age of children; third, differences in anatomical age of children; and in the fourth place, the development of breathing capacity or so-called lung capacity, which has a direct bearing upon the great problem of how we shall eliminate tuberculosis.

This is a simple method of determining the height of this particular child. (Slide) This is a normal girl, a girl whose weight is relatively normal for her height. At the time this picture was taken, she was eleven years of age. She had the height and the weight of a fifteen year old child.

(Slide) Here we have some individual growth curves. The vertical direction indicates the height in inches and centimetres. We make all our measurements in centimetres; but the numbers here 55, and 59, and 62 refer to inches. The divisions along this line indicate the age—seven years, eight years, nine, ten, eleven, twelve, and so on, up to eighteen years. These are the individual growth curves of some girls. The measurements were made on nude children; they were made by specialists in physical measurements or anthropometry. The children have had directed play, physical training and medical inspection, and the individual curves represent the growth in height of a particular child. Number 1 is a tall girl who was 55 inches at eight and a half years of age; and she was tall at twelve years of age, at thirteen, fourteen, fifteen, and so on. She was a pupil at the University of Chicago. Number 11 is the individual growth curve of a short girl, who was very short at eight years of age, short at twelve, short at fifteen, short at eighteen.

Now there are a few basic principles of growth which stand out very distinctly when you look at these curves. The tall children remain tall; short children remain short as a rule. The curves have a railroad appearance. Tall girls complete their growth in stature as a rule at about fourteen and fifteen years of age.

This girl (indicating) practically stopped growing after fourteen years of age and we now have her records until she is 23 years of age. Short girls continue their growth longer than tall girls. These short girls at fourteen and fifteen and sixteen years of age are still growing in stature.

The point is this: Tall girls begin their rapid adolescent acceleration at an early age —eleven, twelve, or thirteen; tall girls complete within a few centimetres their growth in stature about the time they are fourteen or fifteen or sixteen. Short girls do not begin to have their adolescent acceleration until they are thirteen or fourteen years of age, and they continue to grow rapidly until fifteen, sixteen or seventeen years of age. The point is, then, that tall children grow differently from short children; and any scale that would measure children by the average of these two would do injustice to both.

If you average those curves, those groups of curves, you are averaging the growth of a child that has completed its growth with the increment of growth of a child that is at its maximum rate of growth. Consequently, we need different standards for tall children and for short children. Tall children begin their adolescent acceleration earlier and finish their growth sooner than short children.

These are the weight curves; you see the weights vary more than the height. However, Number 1 is also the heaviest girl, covering a period of ten years. Number 10 is the lightest girl.

When we look at the boys' curves (Slide) we see the same thing. The boy that is tall at seven will be tall at fourteen and sixteen and eighteen; and the boy that is short at seven as a rule will be short at fourteen, fifteen and sixteen, and so on. The taller boys have their period of adolescent acceleration earlier than the short boys. These boys have almost finished their period of rapid growth, while these other boys are right in the midst of it. Tall boys grow differently from short boys. These taller boys—and the taller girls —are physically older, physically more mature than the shorter, lighter boys and girls. They reach their adolescent periods earlier; they reach their period of adolescent acceleration earlier; they reach their period of final stature earlier.

There are several interesting things that could be discussed in regard to these individual growth curves, and so far as I know no one else has followed the same children, year after year, for periods of five, ten and twelve years. Consequently, these 2500 individual height curves which we have worked out have direct significance in the study of the problem of how children grow. These growth curves are nearly parallel. In other words, if we would match the growth curve of a child at seven with this series of curves, we could tell approximately how tall the child would be at fourteen.

Another method is to get the coefficient of correlation. Now, everybody is talking coefficients of correlation, and you no doubt know a great deal about the methods. It simply means if there is a one to one relationship—if the tall boy who is tall at six is tall at fourteen, and the short boy who is short at six is short at fourteen, and this relationship holds true for all the cases—there would be a coefficient of plus one (+.1). If the reverse were true there would be a coefficient of minus one (—.1). If we get the coefficient of correlation at the ages of seven and sixteen for a large group of children, we

find that coefficient of correlation is plus point eighty-five or eighty-six, (+.85 or +.86), or even point ninety (+.90); that is, children who range high at seven years of age (or low), range high at seventeen years of age. Therefore, if you knew the group and you knew how tall the child was at seven, you could prophesy with a considerable degree of accuracy how tall the child would be at sixteen or seventeen.

We could go still a little further and apply the mathematical formula of the method of regression. We find that if we get the height of a child at seven years of age we can tell you to within two or three centimetres, how tall that child will be at seventeen years of age, providing there are no accidents, or diseases that will seriously interfere with the child's growth. In other words, we have come to the point where we can prophesy in physical growth. If you will tell us how tall a child is at six years of age, or even how long a child is at birth, we can prophesy to a high degree of accuracy how tall that child will be at sixteen or seventeen or eighteen years of age. And this has a tremendous educational, nutritional and sociological value, because if the child is not growing at the prophesied rate, remedial measures may be taken to stimulate growth or to retard growth, whichever may be the necessary type of improvement desired.

(Slide) The National Child Health Council met a year and a half ago and proposed that we go into the question of physical growth and formulate standards of growth. I have been working on this problem since and you have here a tentative table. This table is based upon the consecutive measurements of nude children. No child is included who did not have at least five years of measurements. No child is included who was outside a "normal zone," all had had medical inspection, all were measured by trained anthropometrists. No child was included who was defective or had any serious disease or handicaps. Consequently, we took a group of children that were supposed to be normal or near-normal and we worked out standards for height, weight and age. Take a child, for example, 57 inches tall. If he is ten years of age, he should weigh 76 pounds, if eleven, 78 pounds, if twelve, 79 pounds, and if thirteen, 82; that is, there is a gradual increase for weight with age, after a certain age, regardless of the height. So, to know the height alone is not quite sufficient. Surely to know the age alone is very insufficient.

(Slide) This is a sample of one of the Iowa boys who is a little overweight for his height, about one pound. He is taller than the average boy of his age—three years—and he is heavier.

(Slide) This simply shows a little preschool laboratory that we have where we are studying children from two to four years of age. These children come from homes in Iowa City to the University every day for the half day. We are carrying on psychological and anthropometric experiments on them daily.

(Slide) Here you have an illustration of a girl who belongs to a superior group. She is taller than the average for her age. She is twelve years old. She has the height and the weight of a sixteen-year-old child. She is physically developed similar to a sixteen-year-old child. There will be another picture later which will show her a year earlier than this. She is socially at the age of a sixteen-year-old child. She is a normal type judged by her height and her weight and the relationship between these two is in accordance with her physiological age.

(Slide) Here are some more individual growth curves. This is a tall girl (indicating); this is a short girl (indicating); the dots show the period of maturation, the period of first menstruation of the girls. The tall girls as a rule mature earlier than the short girls. These conditions are modified by temperature or climate, and to some extent by social conditions.

The point I am trying to make is that tall heavy girls are physiologically older than short light girls; they mature earlier; they reach the period of adolescent acceleration in growth earlier. They are physically older, they are socially older, as a rule.

(Slide) This picture shows the distribution for pubescence of boys. There is a wide range of individual differences in the development of both boys and girls during the adolescent period. These results come from near here. They show that some boys are pubescent at ten years of age, some at thirteen, some at fourteen, and there are boys sixteen years of age who are pre-pubescent. Some boys are pubescent at ten, others not pubescent until after sixteen. There is a wide range of individual differences. Some girls mature at ten, some at eleven, some at twelve, and others not until fifteen or sixteen and in a few instances seventeen years of age.

(Slide) The effect of maturing may be noted on growth. We selected all of the girls from the University of Chicago High School, the Horace Mann School, at Teachers College, and our Iowa University School —the girls that had matured at twelve years of age. Those that matured at twelve years of age were growing between twelve and thirteen years of age at the rate of 7 centimetres, on the average, per year; in two years they dropped down to about 1 centimetre a year. That is, early maturity was followed by cessation of growth in stature. Tall girls mature early and the cessation of growth appears soon after. Girls that mature late do not have their cessation in growth until after maturity in most cases. That is not always the case, however.

(Slide) Here are four children twelve years of age, chronologically. These children are all the same age chronologically. They have approximately the same I.Q., that is in intelligence they rate approximately the

same. Their I.Q.'s run from 132 upward, this girl having a little higher I.Q. than the others.

Physically, they are all of different ages. This boy is pre-pubescent. This boy is pubescent. This girl is about at the age of maturity and this girl is post-pubescent, that is, she has had her period of first menstruation; she is the oldest physically; and this one comes second, this one third, and this one fourth. Girls, as a rule, of course, are older than boys, physiologically speaking, from a year to a year and a half, on the average.

This boy (indicating) is mentally alert and has the intelligence, the I.Q., equivalent to the others, generally speaking, but he is mentally young; he is in the eighth grade. This boy is in the ninth grade. This girl is in the tenth grade, and this one is in the eleventh grade. They are all chronologically the same age; they are all, as far as intelligence is concerned, about the same; physiologically, they are all of different ages; and pedagogically they are all in different grades. Socially, they are all of different ages. It would be a crime to put this little boy up into the eleventh grade; and it would be just as much of a crime to put this girl back into the eighth grade.

So let me suggest one note of warning: We cannot afford to promote the children on their I.Q.'s alone as is being advocated in this country in a very broad fashion. We have to take into consideration the physiological age of the child; we have to take into consideration the social age of the child. One index of the physiological age and the social age is the height of the child and its weight.

(Slide) Another method of testing physiological age is to take an x-ray of the wrist. I now have 350 of these x-ray pictures. You have here the picture of a little child who was a year and a half of age—my little girl. She has two bones in her wrist. When she gets to be fourteen, she will have eight bones in her wrist, but at present she has two.

(Slide) The next picture shows one of my twins, five years old; this boy has four bones

THESE FOUR CHILDREN ARE THE SAME AGE CHRONOLOGICALLY; PHYSICALLY THEY ARE ALL OF DIFFERENT AGES

in his wrist. (Slide) The other twin has seven bones in his wrist. The latter is taller, heavier, older, physiologically speaking, today than the former, although chronologically he is the same age. The point I am trying to make is that children of the same chronological age may differ tremendously in their physical or anatomical age.

(Slide) Here is a boy about eleven years of age. (Slide) Here is a boy thirteen years of age. Now, the eleven-year-old boy is older, larger, further developed, anatomically speaking, than this thirteen-year-old boy. Consequently in judging his height, in judging his weight, in judging his school progress and his social activities, we should take into consideration the anatomical age of the child. One of those boys is pre-pubescent; the other is post-pubescent. The younger one is the post-pubescent one.

Just a few further facts about the physical development of children: If we are going to prevent tuberculosis in adults, we should try to develop the breathing capacity of our boys and girls.

(Slide) I am told on pretty good authority (one article is in the last number of the magazine of the "Journal of the American Medical Association") that the children with tuberculosis fall from 40 to 50 per cent. below the norm in breathing capacity. Consequently, every doctor who examines a child should take into consideration its breathing capacity; and every school should have some means of checking the breathing capacity and the growth of the breathing capacity of the boys and girls.

(Slide) We have just started to work out a height breathing-capacity table. We find that there is a closer correlation between growth in height and breathing capacity than between growth in weight and breathing capacity. If we can get such a table it would be of wonderful assistance, since no reliable breathing capacity tables exist. We have here the results of 40,000 measurements on 2500 children in breathing capacity, and we have here the beginnings of a table which will be completed in the course of a few weeks, which tells what the breathing capacity should be for the height and age of the child. We shall work out the same thing in regard to the weight of the child.

(Slide) Here is an interesting chart which simply shows the growth of one child from seven to seventeen years of age. I have at least 500 of these charts worked out. This boy came from the Sidewell Friends School here in Washington. They kept a very careful record of him since the time he was seven years of age up to seventeen years, and you have here 22 traits. And if we can take the height and the weight and the breathing capacity and all these measurements as 100 per cent. at seven years of age, we get the per cent. of increase at seventeen years of age. Breathing capacity is indicated by Number 18. This child gained from the time he was seven to the time of seventeen years, 240 per cent. in breathing capacity. Boys as a rule gain more in breathing capacity than girls. The greatest gain in breathing capacity comes during the adolescent period. The taller, heavier boys have their adolescent acceleration in breathing capacity earlier than the short, light boys. Boys continue to develop in breathing capacity as a rule until they are seventeen, eighteen or nineteen years of age. Girls begin to drop off in breathing capacity at fifteen years of age.

(Slide) The next curve shows simply a sample of two boys with normal breathing capacity. This boy (indicating) is eleven years old; this boy is nine. This boy has the average height of an eleven-year-old boy and the average weight; this boy, you see, is taller and heavier than the boy who is eleven years of age; his weight is in proportion to his height. He looks there as if he is underweight, but as a matter of fact he is eight pounds overweight for his height, because he is very large-boned and bones weigh considerable, even in boys. (Slide) Here is a girl who comes pretty close to a normal standard type. She is eight years old.

(Slide) Here we have the chest girth measurements. We have not found a very close relationship between chest girth and breathing capacity, especially with girls. The curves take a decided turn during adolescence and so far as breathing capacity is concerned, we get a very poor insight into the breathing capacity by simply taking chest girths. The measurements are very inaccurate as a rule, anyway.

(Slide) This shows the breathing capacity curves of some boys. See how the curves shoot up during adolescence. These are individual breathing capacity curves of some Horace Mann School boys, showing the cessation of growth, or dropping off of growth from the ages of nine to thirteen and then the rapid growth later on.

(Slide) These two curves happen to be the curves of two brothers, and one was considerably larger than the other. The breathing capacity curves take a somewhat similar trend. Both are slightly below the average for this particular group of children. The breathing capacity measurements have a mental factor which the other measurements do not have. They are called psychophysical measurements, and there is always a question of the voluntary effort of the child being included. (Slide) These are two brothers again who are closer to the norm. There is a very close relationship between the growth of brothers, even though one may be considerably taller than the other.

(Slide) These are also some growth curves of boys in breathing capacity. You see the rapid growth during the later ages.

(Slide) These curves are technical curves which show the relationship between one physical trait and another, and we have worked out by the coefficients of correlation on the same children seven years of age, and

eight, nine, ten, eleven, twelve, and so on up to seventeen, the inter-relationships in the growth for the physical traits; and this gives the relationship between breathing capacity and height, the coefficient between breathing capacity and height. The coefficient of correlation as you see is about point eighty (+.80) and never drops below sixty (+.60); that is, there is a very close relationship between growth in height and growth in breathing capacity. For weight it is considerably lower, and for the strength tests still lower. Boys grow more regularly than girls. If you will notice these curves at the top of the chart, all of the coefficients of correlation among different physical traits of boys are higher as a rule than for girls.

(Slide) This is the last curve and it shows you the mental growth of children. We have been working for several years with the same children and we have now six consecutive intelligence tests, on the same group of children; and so far as I know, this is the first time that an empirical mental growth curve has been presented. The physical development of the child is of primary importance, not only in the home, but in the school. There are the mental growth curves of superior boys and superior girls; that is, boys and girls with an intelligence quotient of 110 or more. And here are the mental growth curves of average boys and girls, that is, boys and girls with an I.Q. of 90 to 110. There is a slight divergence in the curves. Superior children become a little more superior as they grow older according to these curves. There is a close relationship between physical growth and mental growth. The mentally superior children are also physically superior, on the average.

There is also another relationship between the mental and physical growth. There is a period of adolescent acceleration in the mental growth of children, at the ages of from eleven to fourteen; with the superior girls this adolescent acceleration (of superior girls)—the dotted curve is the girls—appears at eleven years of age; with the average girls it appears about twelve. With the superior boys it begins at thirteen, and if our curve continued it would probably show that with average boys the adolescent acceleration in mental growth begins at about fourteen.

In other words, these records show that there is a close relationship between stages in mental growth and stages in physical growth. They show that children that are superior mentally as a rule are older or superior physically. They show that there is a wide range in physiological differences among children of the same chronological age. We are ready to start in on a campaign for the development of the breathing capacity of boys and girls in America in order that we may reduce, as you have done so effectively, the number of tuberculosis patients in this country.

Invalid's Prayer

By ROBERT HANLON, Middleton, Mass.

Empower me, O God, through all my days
To serve my fellowman in little ways.
Let men of might conceive the mighty towers;
Let genius brightly deck the world with flowers;
Enough for me if my rude hearth be warm
When pilgrims come for shelter from the storm.
No gift I crave to hold a flaming light,
But oh, that I might lead some child aright;
Might suffer well; might ease another's pain.
And if I cannot swell a choral strain,
Then let me fling a song from my lone hill,—
A hymn of highest faith. I know Thy will;
Empower me that I may serve to-day.
O God, hear me, I pray!

Look Before You Chase

By LEONIE LANDO

I WAS carried from the Pullman, out under the lantern-like stars of an Arizona midnight, past the little group of trainmen, and placed across the back seat of an open taxi.

It developed, upon inquiry, that the ambulance scheduled to meet the train had not arrived, and the reservation in the big Sanatorium had, through accident or design, been given to another.

Then began a two-hour search for accommodations. The season being at its height, every hotel was full, and it looked for a time as if I should have to lie in the taxi for the remainder of the night. Finally, however, the gods being good, we were informed of a vacancy in the Stone Avenue Hospital. Here at 4:00 A. M. I was deposited in a room next to the kitchen, and nurse and I fell into fitful slumbers until the mad jumble of preparing breakfast made further rest impossible.

Morning came, and with it (and the nurse's summons) the doctor from the sanatorium. Now began a gentle and gentlemanly quizzing, regarding not so much my physical welfare as my financial condition, for

In the arid lands of sunshine
Where the air is dry and pure,
There are most unique distinctions
For the men who chase the cure;
If you patronize the finest,
And engage a suite ahead:
If you've constant supervision
Of a doctor o'er your bed;
If you've maids and special nurses,
Or the slightest claim to wealth—
  You're the bravest, poorest,
    Noble curest
    Tourist
  Seeking health!

But when the bugs attack you
In the common rut of life;
When you've labored for dependents
(Maybe kiddies and a wife);
When you've tried, but sickness finds you
Of all resources bereft;
When you strike out on your courage
For the only chance that's left;
When you try to work, but weaken
On the lightest kind of job;
When you and cash are strangers—
You're a big presuming blob,
You're a reckless, tramping loafer,
And you had no right to come;
You're a hard-luck story,
  Migratory
    T. B. Bum!

But let no one take this as a reflection on any member of the profession. Doctors work, but many people seem to forget that they work for a living. There will be, of course, always one or two in a community who may harden their hearts utterly, yet in this little town of well-to-do sick, and hard-up sick, and broke sick, there is scarcely a medico who does not take his quota of the last, and do honorably and cheerfully his best by them. The townspeople, too, the wonderful, broad, great-hearted Western people, who maintain through personal subscription an institution where the destitute and dying may be carried to pass their last days in peace, what can be said in too high praise of such people!

Those who criticise so mercilessly the migratory sick are of the wealthier class of health seekers, or the temporary residents who come to Arizona to establish makeshift sanatoriums wherein to fleece the lunger. It is these people with whom the sick man too often comes in contact, and from whom he carries away the mistaken impression of a crooked West.

Having completed my questionnaire, and the nurse instituting a further search, we discovered there were just two places in town at that time, charging a reasonable price to the sick. To one of these I was accordingly conveyed.

But even here, secure myself for the time being, I saw the derelicts of disease and circumstance drifting hopelessly about, futilely fighting that over which only absolute rest and freedom from worry can win even a doubtful victory. During a previous breakdown I had been one with these miserables, and I felt for them now as only one can feel who has suffered with them, for it is only by suffering that we acquire the understanding heart.

I am minded of an incident which occurred at that time illustrative of this very thing. I had been removed to a charity hospital, and my mother (also afflicted) was left to exist as best she might. We had sold every trinket we ever possessed, and the time had now come to part with her wedding ring. To her dismay she found that the jeweler considered the ring too worn and thin to be worthy of purchase.

Stepping out to the sidewalk again, she was accosted by a short, red-headed man, badly emaciated and rather shabbily dressed.

"Madame," he said, blocking her retreat, "I have been watching you through the window. "Are you trying to sell your wedding ring?" Embarrassed, and on the point of tears, she murmured, "Yes."

"You must be very hard up indeed if you are trying to sell your wedding ring," he said questioningly, and then suddenly slipping a dollar into her hand: "Let me buy it, and you keep it safe for me."

In another moment he had vanished up

(*Concluded on page* 420)

Journal of the Outdoor Life

Published by the
NATIONAL TUBERCULOSIS ASSOCIATION
370 SEVENTH AVENUE, NEW YORK CITY

The aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

Adding Twenty Years to Life

THE statement of faith adopted by the American Public Health Association at its recent meeting in Cleveland to the effect that "within the next fifty years as much as 20 years may be added to the expectancy of life which now prevails throughout the United States," is at once a challenge and a stimulus to all public health workers throughout the country.

The founder of the American Public Health Association, Dr. Stephen Smith, who died a few months ago, illustrated in his own life and convinced leaders in the association that a goal of this character is not unreasonable to expect. Quoting the resolution adopted we read, "From a span of 40 years in the England and Wales of 1840 to 1850, we have already passed to one of 60 in some of our United States in 1920.....

"In New Zealand they have all but attained for their people an average length of life of 65 years. . . . It is the opinion of the American Public Health Association that the maximum life expectation is far from having been attained even with no further additions to our knowledge of the cause and means of prevention of disease. By adding to scientific control of communicable diseases and the protection of infancy, the avoidance of disorders of nutrition and the degenerative diseases of middle age we may well promise the attainment in the next fifty years of a span of healthy life beyond the scriptural ideal of three score years and ten."

This is not the enthusiastic "boost" of a group of lay promoters. It is the conservative judgment of the best technical, scientific brains in the public health field of America. The tuberculosis fighting forces of this country are in the forefront of the firing line against preventable disease and are leading the procession for health improvement. The work that we have done has counted much in the prolongation of life attained during the last twenty-five years. Who shall be so pessimistic as to say that tuberculosis cannot be reduced to a comparative minimum of 10 deaths per 100,000 population each year? When that time shall come more years will be added to our normal life expectancy.

Tuberculosis and Climate

THERE is an old saying oft quoted to the effect that people who have made a bad bed should not be ashamed to lie in it. One is reminded of this saying in connection with some publicity issued by a southwestern city that calls itself the "sunshine city" in which the following phrase is prominently displayed, "Tuberculosis is cured by climate."

Readers of the JOURNAL OF THE OUTDOOR LIFE do not need to be told that such a statement is absolutely false. Tuberculosis is *not* cured by climate and the perpetrators of this publicity know it just as well as anybody else. They are trying, however, to get people to come to their particular city because they want to get all the money they can out of them. If with the rich consumptive there come a very considerable number of poor ones, let not the "sunshine city" complain because of the problem of the indigent migratory consumptive. They have made their bed. Let them lie in it.

Auto-Suggestion, Personality and Cures

IN the world of sick folks there is a good deal of excitement nowadays about the teachings of Doctor Coué on auto-suggestion. Some have even gone so far as to say that the eminent French physician's method might be applied with success to the treatment of tuberculosis.

There is no doubt of the fact that in the treatment of any chronic disease, or even of acute disease where the patient is conscious, much can be gained by the application of the principles of auto-suggestion. Whether these principles should be applied by the parrot-like repetition of stock phrases such as, "Day-by-day-in-every-way-I-am-getting-better-and-b e t - ter," is decidedly open to question. Merely to apply by rule of thumb the use of such formulae is a procedure which might fit a few types of mind, but for most people it would be of relatively little use taken by itself.

The real success of the Nancy clinic of Doctor Coué's, we venture to say, is brought about not so much by the use of a particular method as by the personality of the doctor himself. In other words, auto-suggestion can no doubt be stimulated by mechanical practices, but it needs the urge of a strong, dominant personality to supplement the ritualistic procedure initiated by Dr. Coué.

Every tuberculosis patient, who has been under the treatment of a powerful personality, will testify to this fact. The skillful physician can make the patient think of his health rather than of his sickness, and thereby will greatly assist the forces of Nature in bringing about a recovery.

If patients and physicians would realize this fact and practice it more religiously, cults like Christian Science and Chiropractic, that trade upon suggestion as a relief in bodily ailments, would soon pass out of existence for lack of funds and lack of people on which to work.

Annual Meeting Chairmen

THE chairmen of the various sections for the annual meeting of the National Tuberculosis Association to be held in Santa Barbara, June 18 to 25, 1922, as recently selected by the Board of Directors, are as follows: Clinical Section—Dr. W. Jarvis Barlow, Los Angeles, Calif. Pathological Section—Dr. G. W. McCoy, Washington, D. C. Sociological Section—Mr. Homer Folks, New York City. Nursing Section—Miss Jane C. Allen, Tacoma, Wash. Advisory Council—Mr. Fred M. Stein, New York City.

Which Is It ?

IN the July number we published some correspondence between the editor and the Lexicographer of the "Literary Digest." The correspondence aroused considerable comment, so much so that we publish below some more letters on the subject of "tubercular" versus "tuberculous" and "sanitarium" versus "sanatorium." In the next edition of Dorland's "American Illustrated Medical Dictionary," the correct distinctions between these words will be given, we are assured by the publishers. The untenable position of the "Lexicographer" must be apparent to everyone.

The first letters are from H. J. Achard, Managing Editor of the "American Journal of Clinical Medicine."

The Lexicographer's Easy Chair,
"Literary Digest,"
354 Fourth Ave., New York, N. Y.

Dear Sir—In the "Journal of the Outdoor Life" for July, there is an account of a correspondence which Dr. Philip P. Jacobs, of the National Tuberculosis Association, had with you regarding the significance and the uses of the terms "tubercular" and "tuberculous." Having been engaged intensively in the scientific study of tuberculosis for many years, I, naturally, am interested in this matter, since it seems to me that the "tools" of any workman should be exact to give the best results. Writers may look upon the spoken and written word as part of their "tools."

In your reply dated April 29 to Doctor Jacobs' letter of April 28, you conclude that your use of the word "tubercular" as designating "afflicted with tuberculosis" is correct, and is supported by literary and lexicographic evidence, as well as by usage. As to the last claim, namely deference to usage, it may be objected that an error that is committed by the masses is in no way binding upon the cognoscenti.

You say that the word "tubercular" dates from 1799. It is to be pointed out, though, that, at that time, and indeed until the last quarter of the nineteenth century, the term was employed purely in a descriptive sense, indicating a nodular condition, irrespective of the cause of these little tumors ("tubercular"). There are numerous "tubercles" throughout the body, especially on bones, and they may also be found on autopsy in persons afflicted with cancer, with gumma (syphilis) and with various other diseases. A "tubercular" appearance of an organ means nothing in so far as the nature of the disease is concerned. A tubercle is not even necessarily pathological.

The National Tuberculosis Association and, likewise the "Journal of the American Medical Association" were perfectly correct in making the distinction between the terms "tubercular" (*tuberculoris*) and "tuberculous" (*tuberculosus*). The distinction was made in the interest of scientific accuracy and for the deliberate purpose of distinguishing one variety of tubercular disease from all others, namely, the one that was caused by the bacillus tuberculosis. It happens, indeed, that one can find "tuberculous" lesions (namely, those caused by the tubercle bacillus) which are not tubercular at all, in so far as they do not show even microscopical tubercles. This point would, in my opinion, serve to emphasize the difference between the two expressions. It confirms the contrast: Not all tuberculous lesions are tubercular. Reversely: Not all tubercular lesions are tuberculous.

Permit me to suggest, in closing, that the designation "tuberculous" as pertaining to tuberculosis is etymologically preferable. The Latin form is *tuberculosus*; the German is *tuberkulos*; the French *tuberculeux*. Neither in Latin nor in German, nor in French, are the terms "tubercular" (*tuberculoris*) employed. If etymology is worth anything at all, its suggestion, it seems to me, might be accepted.

Strangely enough, I must admit, the Italian expression is *tubercolari*, while the Spanish is correctly *tuberculoso*.

Despite the Italian exception, I am convinced that the position of the National Tuberculosis Association, as outlined by Doctor Jacobs, is correct. It would be helpful if an important authority like the incumbent of the Lexicographer's Easy Chair of the "Literary Digest" would assist efforts in the interest of exact language.

Very respectfully,
DR. H. J. ACHARD,
Managing Editor.

Dr. W. A. Newman Dorland,
care of W. B. Saunders Co.,
W. Washington Sq., Philadelphia, Pa.

Dear Doctor Dorland—Will you permit me a suggestion for your medical dictionary which I am using so constantly that I feel at liberty to offer criticism when I believe it to be called for.

On pages 893 and 894 of the tenth edition, you define sanatorium as:

> 1. A sanitarium. 2. A health station; a health-resort in a hot region.

sanitarium as:

> An establishment for the treatment of diseased persons, especially a private hospital for convalescents or those who are not extremely ill.

In my opinion, the definition for sanitarium should, with suitable modifications,

be applied to sanatorium, while sanitarium itself should either be omitted altogether or mentioned only to be condemned. Volume 24, of the eleventh edition of the Britannica, page 127, gives my argument perfectly, and I venture to quote it here:

> Sanatorium
>
> (a modern Latinism, formed from *sanare,* to cure, restore to health, *sanus,* whole, healthy, well; often wrongly spelled sanatarium or sanitarium), an establishment where persons suffering from disease, or convalescents, may be received for medical treatment, rest cures and the like; in recent modern usage particularly used for establishments where patients suffering from phthisis may undergo the open-air treatment (see Therapeutics). The mis-spellings of the word, sanitarium and sanatarium, are due to a confusion of "sanatory," i. e., giving health, from *sanare,* and "sanitary," pertaining to health, from *sanitas,* health.

This is in keeping with French and German lexicographers. Littré ("Dictionaire de Médecine") and Guttman ("Medizinische Terminologie") define only sanatorium, leaving sanitarium out altogether and mentioning the French and German equivalents of sanitary in the correct meaning of the term.

While I am on the subject, might I suggest that the different meanings of the term tubercular and tuberculous might be stressed a little more emphatically. As you will remember, the Jour. A. M. A. and also the National Tuberculosis Association have gone on record in favor of the term tuberculous as an etiological designation, referring to conditions that are due to the pathogenic action of the tubercle bacillus; while the expression tubercular is a pathological one, meaning nodular, pertaining to or resembling nodules. Tubercular lesions may be tuberculous. They frequently are syphilitic, cancerous, etc. Tuberculous lesions are not necessarily nodular (tubercular), since there is such a thing as a tuberculous inflammation without tubercles. Also, there is a tuberculous rheumatism where tubercles are not always found.

I doubt whether it comes in the scope of the lexicographer's work to condemn such faulty diction as "a tuberculous physician," when a tuberculosis physician is meant; or, still, worse, "a tubercular man or specialist." Yet, these expressions are current, employed by people who would never speak of "syphilitic," "cancerous," etc., physicians when they mean physicians devoting particular attention to syphilis, cancer, and so forth.

In the matter of sanatorium versus sanitarium, and tuberculous versus tubercular (as an etiological term), I feel very strongly and have insisted on orderly writing. I trust that you will see your way clear to distinguish sharply in the matter of these terms in later editions of your splendid dictionary.

With kind regards,

Very sincerely yours,

DR. H. J. ACHARD,
Managing Editor.

Another letter of interest is from Dr. John Ritter of Chicago, Instructor on Tuberculosis, Rush Medical College.

Mr. Philip P. Jacobs, Publicity Director,
370 Seventh St., New York, N. Y.

Dear Mr. Jacobs—With much interest have I read in the July issue of the Journal of Out-of-Door Life, your controversy with Lexicographer concerning the proper use of the words tuberculous and tubercular. For many years I have given a course on Tuberculosis at Rush Medical College and about the first lecture which I give at the beginning of each new semester I make clear the definition of such words, terms or phrases, as are now in general use by the members of the medical profession interested in tuberculosis.

When should you use the word tubercular or tuberculous, when sanitarium or sanatorium, when tuberculously infected, when tubercularly diseased, difference between a tuberculin reaction and a tuberculin phase, etc. For instance, when I have dwelled for some length on tubercular and tuberculous, where it is correct or where it is wrong to use the one or the other, I state briefly: Say tubercular when you speak or refer to the word in a general sense, but say tuberculous when you wish to use the word in a specific sense. Tuberculous is the adjective applied to lesions regardless of their form, caused by the tubercle bacillus and tubercular the adjective which is applied broadly, includes every condition and describes the appearance of the lesion regardless of its etiology. This accords with the conceptions of the committee appointed some years ago by our National Tuberculosis Association.

Lexicographer bases his reasons for using the word tubercular, as given in his answer to your communication, on the authority of books and publications issued previous to the discovery, of the tubercle bacillus, that was previous to the discovery, of the tubercle bacillus, the etiological factor of the disease, by Robert Koch in 1882, since which time we have a much different conception concerning tuberculosis. He states in his commentation that the word tubercular dates from 1799; quotes J. Forbes 1834, "Tubercular Consumption" Bristowe 1876, "The tendency of an organ to become tubercular." Bristowe: "The Theory and Practise of Medicine," 1876, was then considered a proper title for a text-book, but

could not be considered appropriate or even a proper title at the present day.

The science of medicine is no longer considered a theory but a fact based upon fundamental facts and the title of Bristowe's text-book of the present day would read, "The Principles and Practise of Medicine." "Bristowe 1876," (the edition to which Lexicographer refers), on page 70, makes the following statement: "But the so-called scrofulous glands are certainly *not* tubercular." This is followed at some length by giving his views concerning scrofula and why he differs with Rindfleisch's views, in Ziemms Encyclopedia, but in a later edition, the seventh, 1890, page 61, he omits all reference to both his or Rindfleisch's views and plainly states, "The truly scrofulous glands are tubercular."

There can be no doubt if one follows Bristowe carefully, that his present day conception about using the words tubercular and tuberculous would conform in his text-book to present day views. Not only would the words be used in a restricted, in a limited or in a general sense, as the occasion may require, but the title of his text-book would undoubtedly read, Bristowe: The *Principles* and Practise of Medicine.

Yours truly,

JOHN RITTER.

The Exam.

(*Concluded from page* 403)

Thanks to the Lord, it is all that is required of me, and when I ask the doctor what is the outlook in my case, he declares that I am an incipient case—a débutant in the game—and that if no complications arise during the course of the disease, I will be an arrested case in six months. So here I am—taking the "cure"—fighting the bugs until victory, and like Foch during the great war, never thinking one minute that I will be beaten by them.

Communications

Editorial Note: *The following letter from Dr. J. W. Pettit, Medical Director of the Ottawa Tuberculosis Colony and Vice-President of the National Tuberculosis Association, illustrates a journalistic tendency which is all too common in the American press. The distortion of a perfectly plain, matter-of-fact and common-sense statement by a man of Dr. Pettit's reputation in order to make a sensational paragraph is a journalistic practice that cannot be too strongly condemned. Dr. Pettit cannot correct this statement in the public press, for the simple reason that the public press which has widely disseminated the false information would not consider it worth-while news to disseminate with equal wideness of distribution of true information. The* JOURNAL OF THE OUTDOOR LIFE *is therefore glad to be of service in helping him to correct the false impresssion among his associates and friends in the National Tuberculosis Association.*

Ottawa Tuberculosis Colony,
Ottawa, Illinois.
October 16, 1922.

To the Editor:

I have been very much embarrassed and I fear much harm has been done by a misquotation of something I said at the Mississippi Valley Conference.

I am reported as having said that "Tuberculosis Means Long Life"; "If You Want To Live Long Have Tuberuclosis." This has been heralded all over the country.

I made no such senseless and misleading remark. What I did say was "Any Individual Who Contracts Tuberculosis And Leads The Orderly Sort of Life He Must To Get Well, and Continues To Lead That Life Usually Lives Longer Than He Ordinarily Would."

I cannot do much to correct the impression that has gone out that I have some secret with regard to tuberculosis but I can, I hope, through your columns correct the impression so far as my associates in the National Tuberculosis Association are concerned. Yours very truly,

J. W. Pettit, M.D.

Joy Flingers

A Department of Cheer

Edited by J. F. O'Neill

The Daily Half Dozen

By WET RALE

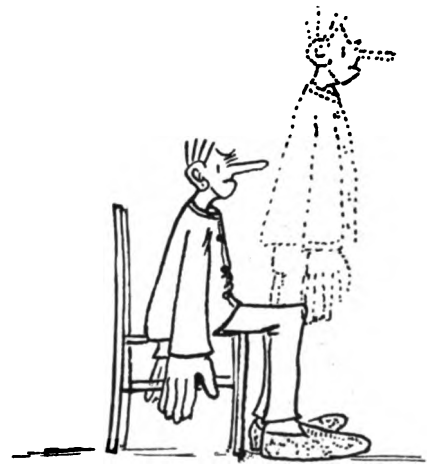
WALTER CAMP'S "Daily Dozen" seems to be accomplishing so much good among robust people that it is time some expert devised a set of calisthenics for the desuetudinous curee. Now that we have phonograph records that teach exercises and play suitable tunes while they are being practised by thousands of stretching enthusiasts and as it is almost certain that radio fans will soon be getting up from sessions with orchestras and contraltos to engage in the daily bedtime setting-up exercises as broadcasted by WGY or YTB, it is not fair to listening-in cure takers that they be left in the lurch as concerns the development of their sinews and the discouragement of their adipose.

After a good deal of meditation and research I have built such a system of exercise. Anyone can do it. For sheer simplicity it is the berries.

Readers of my system are urged to keep this copy of the JOURNAL on file where they may constantly refer to it or else cut these pages out and paste them on cardboard for ready reference. The text is carefully illustrated with drawings that describe the exercises as well as it is possible to describe them.

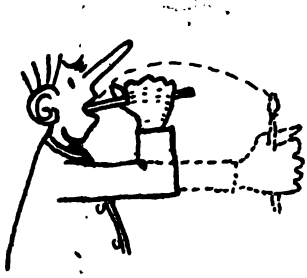
First we have the Unhinge. To accomplish this a sedentary invalid rises from whatever state of recumbency he may be in and comes slowly to the perpendicular, balancing his entire body on both feet. Retain this position one minute. Oh, I know it will seem difficult at first but after a few weeks of conscientious Unhinging the effort will be negligible and you will be an expert Unhinger.

TITLE: THE UNHINGE



TITLE: THE SQUAT

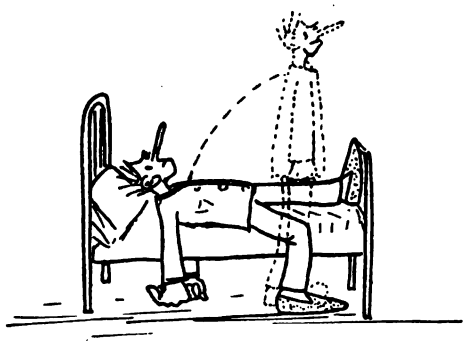
The second exercise is the Squat and should prove to be of slight exertion even to the bedfast. It is done in this manner. While still retaining the Unhinge pose, have a friend place a support, preferably a chair, behind you. Let your arms hang limp, then slowly bend the knees and the hips at the same time, keeping the torso and head at a right angle with the horizon, though a slight deviation is permitted. When you come in contact with the seat of the chair you will be surprised to find that your body forms two perfect right angles and the attitude you have assumed comparatively comfortable. Retain it two minutes.



TITLE: THE THRUST

The third exercise is the Thrust. The patient, while maintaining the Squat attitude, takes an ordinary clinical thermometer in his right hand and, with the left hanging limp, pushes his right, which holds the thermometer, forward from his body. He holds the arm rigid for an instant, then keeping his upper arm horizontal he bends the elbow and draws the forearm toward him until the bulb of the thermometer enters his mouth. Retain the pose for three minutes. After some skill has been attained the Thrust may be held for as many as five minutes with very slight fatigue.

The fourth exercise is the Sprawl. The Sprawl is accomplished by standing sidewise near a bed. Lift the leg that is next to the bed until it is higher than the bed. Then swing the suspended member until it reaches half way across the bed



TITLE: THE SPRAWL

and allow it to rest there. Carefully and deftly manoeuver the torso until it has been perfectly insinuated into a central location on the blankets, or under them, as the case may be. It will be found that the body will be resting parallel to the bed with almost the entire weight upon it. It will be recalled that one foot has been left on the floor outside the bed. Gently give this dangling member a graceful flourish and bring it to a position beside its fellow. The Sprawl may be maintained for hours at a stretch. Daily practice of this exercise will give a patient a degree of skill that may serve him well if the nurse threatens to catch him out of bed when he should be in it. Some patients take so kindly to the Sprawl they prefer it to any other method of passing the time.

The fifth exercise is the Gulp and here is the way to do it. Take an ordinary drinking glass, have the nurse pour a half pint of milk into it, and hold it in the right hand. Keeping the body erect, swing the right arm

TITLE: THE GULP

up with a slow outward motion until it forms a ninety-degree angle with the body. Bow the head slightly as if in reverence, lower the right elbow and bring the hand that holds the glass forward until it reaches the lips. Open these latter (and it may be wise to open the jaws also) and, holding the tongue firmly against the lower front teeth pour the milk into the mouth. Alternate this exercise with both hands until the contents of the glass are consumed. Never use more than one glass at a time. If it can be arranged the nurse might insert bits of soda cracker into the mouth between performances of the Gulp as an aid to digestion.

TITLE: THE AMBLE

The Amble is the sixth and last of the Daily Half Dozen. It is an amble in name only, for it comes to a sudden cessation just at the time the mental stimulus is greatest and the physical stimulus is practically nil. In executing the Amble the patient first assumes the Unhinge. He then places his right foot

twenty-five inches ahead of the left. Then he bends both knees. His attitude is now that of a sprinter. Concentrating on his pose he imagines himself about to do a Marathon and if his power of auto-suggestion is great enough he may have all the pleasure of a race including the winner's wreath without any of the effort. The final Amble pose should be maintained for only a short interval as it looks foolish to an outsider, but the exercise itself may be repeated as often as desired.

Under no circumstances should a patient attempt to execute all six exercises at once.

Gems from the Sanmags

Purely Professional

"So Clara threw over that young doctor she was going with?"

"Yes, and what do you think? He not only requested her to return his presents, but sent her a bill for forty-seven visits."

—*The Valley Echo,*
Fort Qu'Appelle, Sask.

Fancy Free?

New Nurse (taking temps): "What is your name, please?"

Patient: "My Christian name is Mr. Gagne, but my maiden name is George."

—*Pep,* Richmond Highlands, Wash.

A New Wrinkle

Our idea of a real Beau Brummel is the fellow from the Men's Infirmary who borrows Mrs. Martineau's electric iron each morning and carefully presses his pants.

—*The Grapevine,* La Vina, Calif.

Happiness, like a wife, requires that we contribute to its support or lose it.

—*Mount McGregor Optimist,*
Mount McGregor, N. Y.

The Antidote

First Patient: "But I don't like the doctor to come to see my girl."

Second Patient: "Why don't you feed her an apple a day?"

—*The Cactus Needle,* Tucson, Ariz.

Leave It to Him

Dr. Rappaport: "Well, Lafferty, are you feeling pretty good this morning?"

Lafferty: "Pretty good, Doctor, only my breathing bothers me."

Dr. R.: "Well, I think I can stop that all right."

—*Spunk,* Mont Alto, Pa.

Still in Peril

Visitor: "And are you now out of danger?"

Patient: "No, the doctor says he'll pay me two or three more visits."

—*The Cactus Needle.*

Ravings Unraveled

The use, choice, and arrangement of words and modes of expression adopted by contributors will not be interfered with except in the interest of clarity and coherence.

—*The Grapevine.*

Cut It Out

By LULU LAUGHEY

If you have an inclination
To be savage, cross, and mean,
If you simply can't be cheerful,
But are sad and full of spleen,
Cast aside this wicked habit,
Put these thoughts each one to rout.
Stick it, stab it, lick it, grab it,
CUT IT OUT!

A Letter

Dear Doctor:

I am trying my best to be happy,
  But I am nearly worn to a thread.
Getting up and dressing,
  Then undressing and then going to bed.

Why can't we sleep with our clothes on?
  I'm sure it is a sin
To wear them out by putting them on
  Then taking them off again.

Now about the rest period, Doc,
  Have it once a week or so.
Then it won't interfere with our plans
  When we've something else to do.

And three day temperature, say every six weeks,
  I'm sure that would be better.
If our temperature rises over 100
  We'll notify you by letter.

And, Doc, about serving our meals,
  Breakfast in bed is my hobby.
Or send coffee and rolls about ten o'clock,
  And serve right here in the lobby.

I'm not complaining about the eats,
  I think our chef does fine.
But I always like a little cold snack
  And something to eat after nine.

—*Kathryn G. Drought,* Rome, N. Y.

Look Before You Chase

(*Concluded from page* 411)

the street, while my mother fled sobbing back to her room.

In those days I used to go out and sit in the little park with the rest of the "bums." There was that wistful, hopeful air about us all, a sort of indefinite depending on chance or Providence, the optimism of the fatalist.

I sits upon this hard park bench,
And loafs where I can see
The husky workin' guys go by,—
The kind I used to be.

I waits for something to turn up,
And longs for things that ain't,
And coughs, and tastes upon my lips
The frothy scarlet paint.

And I recall some writer guy
Who pushed a golden pen,
That said, "There is a Providence
Keeps watch o'er drunken men."

And I've been thinkin', since the Drys
Put prohibition through,
The aforementioned Providence
Don't have so much to do.

And though I'm sick and busted flat,
I'm sort o' hopeful, too,
Awaitin' on the Providence
That watches o'er the stew,
To kind o' look out for the lunger, too.

Not a few of these, weary of waiting on Providence, have turned to bootlegging as a more practical solution of the problem.

The resort in which I now lay was run in a sort of slipshod way, breakfast any time from 9 to 9:45, dinner any time from 2 to 3:30, and supper coming along generally about 9 P. M. Quite often we lay three or four weeks without a bath.

Slowly mending or slowly dying, there was nothing to do but pay your money and grin and bear it. Escape was impossible. There were a few places in town that tolerated the sick for something like $120 to $150 a month, which modest price covered board alone. Tuberculosis is a disease where a minimum amount of waiting on is required. Profiteering is therefore not confined to the cornering of the food market.

In this same resort the monotony was one day relieved by the sight of my blue serge cape (which I last saw packed carefully in the middle of my locked trunk) swishing by on the back of the proprietress' granddaughter, while beneath its hem merrily pattered the brown oxfords belonging to the girl in the next bed.

One by one appeared various articles of clothing, the lawful possessions of the different women patients. Upon protesting we were informed that the things would be returned, but should we report to the authorities we would be turned out immediately, and *there was no place in town that would take the tuberculous.*

Thus we found ourselves literally "at the mercy" of people responsible to no one for the safety of our lives and property.

At a house in town, to which I removed some six months later, I found things little better. The only toilet in this "private sanatorium" was built upon a small porch in the rear of the house. It had no flue or window, and its only ventilation was to open the door and emit the foul air out over the four bed patients crowded into that screened enclosure.

At this same place was a patient in the last stages whose filthy habits were a menace to all of us, but as the landlady considered him "good money," and as we were all sick, and strangers in a strange land, no report was ever made, and no steps taken for our protection.

The facts related throughout this article are not written in a spirit of bitterness, but stated after long observation and actual experience. They are written in the hope that some supervision may be made of the actions of those who come to this country with the intention of staying a year or so and "cleaning up" on the sick. These people are unprincipled, and, as the harpy in one place informed us, "No one will believe what the sick say anyway." Thus they are secure to perpetrate any outrage.

It is my opinion that if the splendid citizens of Arizona could know of the extortionate charges, the bullying, neglect and unsanitary conditions existing in the boarding-houses and small sanatoriums throughout this country, they could and would insist upon legislation altering this condition. There will be thieving, neglect and bullying as long as the ignorant and avaricious are permitted to establish sanatoria without a license, and there will be unsanitary conditions until these places are regularly and frequently inspected by a health officer.

There is always a class of tuberculous patients who can pay reasonably for board and care, and these are the people who fall into the hands of the money suckers.

Then there is that other class who live from day to day, with poverty the only companion, and death the only prospect.

For myself, I cannot regret the experiences of the cure, since they have broadened and taught me tenderness. But for those about me who have fought the unseeen foe and perished — that is a different matter. There is scarcely a tent, 'dobe, shack or house throughout this country that has not witnessed a noble and prolonged fight for life. And if these warriors, now silent, could speak, might they not say:

We are the valiant dead, not they alone
Who 'mid the thundering glory, shout and groan,
Fell in fair contest on the open field.
We fought a foe unseen, nor did we yield
When with the dread disease's crawling flame
Came destitution's shame.
But 'mid disintegration's living hell,
We played the part, bare bravely up and well,
Faced the long, hopeless fight, nor winced nor cried,
And fighting died.
We are the strong, heroic fallen. We
Dumb epics are; a white Thermopylae.

Any ordinary winter brings a recurrence of the same conditions here: The towns are jammed, the sick are knocking at every door; crying with a wordless cry; denied shelter by the protected; shunned by the fearful; picked by the human vultures who receive them with open arms and cold hearts. When will America, the golden land of the immigrant, the saviour of the Belgian babe, Europe's treasurer, discern through the mist of pity, her own—her very own?

O, Great of heart! O! Beauteous! When shalt thou turn thine eye in upon thyself?

Notes, News and Gleanings

A Soldier in the War Against Tuberculosis Falls in Battle

On September 8, 1922, Dr. McDugald McLean died at Asheville, N. C. His death is a great loss to tuberculosis patients, physicians and health workers everywhere, who have known him as friend, physician and author. Dr. McLean was ill with tuberculosis for six years and three months, and during that time his courageous spirit was an inspiration to all who had the good fortune to come in contact with him.

Dr. McLean was born on January 20, 1886, at Georgetown, Texas. He was a graduate of Webb School, Bell Buckle, Tenn., and Southwestern University at Georgetown. Later he studied medicine at Johns Hopkins Medical School and won his B. S. degree at Oxford University (Christ Church), where he was a Rhodes scholar for three years. He served as interne at Bay View Hospital, Baltimore, Md., for one year. In 1916 he married Miss Emma Webb, daughter of Hon. W. R. Webb of Bell Buckle, Tenn.

Six years ago he became ill with tuberculosis, but by strictly following the rules of the cure he was able to continue his practice for some time. About a year ago his illness developed into a very serious condition, and since last February he was obliged to remain in bed, being allowed but rarely to sit upright. During these years of suffering he wrote his book "Tuberculosis; Primer & Philosophy for Patient and Public." The book is a message of hope to tuberculosis patients and their families. and a text-book on infection, prevention and the various kinds of treatment of the disease. Being both physician and patient, Dr. McLean was able to deal with his subject not only from the scientific but from the popular standpoint as well.

His enthusiastic desire to serve humanity is an inspiration not only to those who suffer from consumption, but equally as much to those who are working for its eradication. "He was absolutely absorbed in his book,"

McDUGALD McLEAN, M.D.

writes Mrs. McLean in a recent letter to the National Tuberculosis Association, "and his intense interest through all those long, hard months, when the doctors thought that he might go at any time, prolonged his life, I am sure. He lived for the mails and for any new development and possibilities for his book."

His death is a great loss to the tuberculosis campaign. With his medical knowledge and unselfish love for his fellowmen he would, had he lived longer, undoubtedly have contributed far more to the cause that was so close to him.

Massachusetts Survey

The Massachusetts Legislature has issued an order directing the Department of

"HAVE FAITH! FRESH AIR AND GOOD CARE WILL RESTORE YOUR HEALTH"
(A poster by Raemaekers, published by the French Committee on the Prevention of Tuberculosis and the Rockefeller Foundation. Reproduced by permission. See note on opposite page.)

Public Health to investigate the tuberculosis work of the state. This action results from the introduction into the last session of the legislature of several bills for taking over all tuberculosis institutions by the State Department of Health. The investigation is to cover state, county and municipal sanatoria, their cost of construction and maintenance, and will also include a general survey of all tuberculosis work now in progress in the state. The report of the investigation is to be followed by a recommendation in regard to the future administration of tuberculosis work in Massachusetts, and the advisability of the state taking over and maintaining the tuberculosis hospitals. To carry on the study, Dr. Eugene R. Kelly, State Commissioner of Public Health, has appointed a special board, of which Dr. Sumner H. Remick is chairman.

Raemaekers' Poster for Sale

The cut on the opposite page represents a poster put out by the Committee on Prevention of Tuberculosis in France. It is taken from a poster drawn originally by Raemaekers, the famous Belgian cartoonist and artist. The poster seems to be admirably adapted for use in tuberculosis hospitals and sanatoria, dispensaries and clinics, physicians' offices and other places where patients are apt to congregate. We suggest its use for this purpose. If a sufficient number of orders are received for it in advance, that is on or before January 1st, the National Tuberculosis Association will be able to furnish them at the followlwing prices:

Single copies in mailing tube, size 21 x 27, at 25c. each
In lots of 10 up to 100.....20c. each
In lots of 100 or over.....10c. each

All prices include postage or express.

Cash should accompany orders and will be refunded if a sufficient number are not ordered to make it worth while to print.

The French text will be translated into English and redrawn to conform with style of original poster.

Congress of Open-Air Schools

The first international congress of open-air schools was held recently in Paris. The main purpose of the Congress, as reported in a recent issue of the "Journal of the American Medical Association," was to discuss ways and means for adapting the schools of the day to the open air principle. Among the resolutions adopted was one to the effect that brain work should be restricted to four hours, the remaining two hours to be devoted to the practice of hygiene out of doors. Another resolution urged that in each country a national committee be formed.

Russian Tuberculosis Congress

A report of the first Russian Tuberculosis Congress, which was held last February, has recently been issued and from

this report it appears that administrative difficulties in connection with tuberculosis work have been great. "The general impression to be gathered from the report is of effort under difficulty," says a writer in a recent issue of "The Lancet." In November, 1919, the state took over the direction of the tuberculosis campaign, instituting headquarters at Moscow, where a series of institutions, including open-air schools, was erected to serve as models for the provinces to copy. Lack of skilled personnel, together with changing government in the Ukraine, invading armies, scarcity of medical supplies and economic conditions brought about by the war, together with other causes, contributed to make difficult the carrying out of plans. It is stated that "the further existence of tuberculosis institutions outside Moscow depends upon their gaining support from communal organizations, from private enterprise or from the working classes, whose right to the disposal of the health insurance contributions made by themselves is granted; measures actually taken in Russia to meet the situation include the abolition of recruiting for the army under the age of 21, it being found that military enrollment under that age was deleterious to health."

Government Care of Ex-Service Men in Germany

The law enacted by the German Government, December 5, 1920, for the benefit of its disabled soldiers takes into account three phases of the care of ex-service men, namely, medical care, social care and pensions, according to an article in a recent issue of "Zeitschrift für Tuberkulose." Medical care is put entirely into the hands of the workmen's sick-fund, whether the soldier be a member or not. If the person requires sanatorium or hospital care the government makes use of all available institutions for that purpose, for no government sanatoria or hospitals exist in Germany. Social care consists in re-education of ex-service men in work suitable to the tuberculous and aids them in securing employment. It likewise embraces the care and support of the families of tuberculous ex-service men. The pensions are awarded on the basis of the extent of the soldiers' disability.

Tuberculosis Survey in Porto Rico

Following an appeal sent from the Porto Rico Chapter of the Red Cross and from Governor Reilly, the U. S. Public Health Service has sent Dr. Frederick C. Smith of the Tuberculosis Division to San Juan to make a preliminary survey of the tuberculosis situation on the island.

Raising Funds by Telegraph

When you are in Sweden do as the Swedish do, use an artistic telegraph form, and you will incidentally be adding to the funds of the National Anti-Tuberculosis League. In 1912 the League secured permission from the Chief of the Swedish Telegraph Service to have artistic telegraph forms displayed in all public telegraph offices. These special forms were intended for congratulatory telegrams on weddings, birthdays, etc., and for their use a supplementary charge was made, and a certain proportion of the money thus received was given to the League.

Decrease in Bovine Tuberculosis

At the annual meeting of the American Veterinary Medical Association, reports were presented showing that tuberculosis among cattle has been greatly reduced. In thirty-seven states composing 46.2 per cent of the area of the United States and containing more than forty per cent of the cattle of the country, there is less than one per cent of tuberculosis. In the five years ending June 30, 1922, 175,000 tuberculous cattle were destroyed in this country.

Finland Plans Campaign

Under the Finnish National Association for combating tuberculosis, there is being developed a campaign modeled largely after the Framingham Demonstration. Since 1919, Dr. Severi Savonen has been devoting full time to the organization of tuberculosis work. Dr. Savonen's figures, as

quoted in the September issue of "Tubercle," show that every year between 8,000 and 9,000 persons in Finland die of pulmonary tuberculosis.

Eighty-five per cent of the population live in the country and it is hoped that these people may be reached through a network of dispensaries in the country districts. Facilities for institutional care are "sadly inadequate and the campaign has only just begun."

Delaware Tuberculosis Commission

The Delaware Legislature in 1921 appropriated $55,000 for the work of the Delaware State Tuberculosis Commission. This Commission was organized in 1909 with an appropriation of $15,000 and has extended its work as far as the limited funds permitted. In the twelfth annual report of the Commission it is stated that if Delaware is to show a decrease in its excessively high death rate from tuberculosis, (144.4 for 1920) more intensive work must be carried on, and more work means a more generous appropriation. Out of the $55,000 appropriated in 1921, $30,120 was assigned to sanatorium care of patients, $14,000 of this amount being used for the maintenance of Edgewood, the State Colored Sanatorium which is operated by the Delaware Anti-Tuberculosis Society.

Seven physicians are employed by the Commission to conduct clinics which are held regularly in several other communities. In Wilmington, clinics are held daily, four each week for white patients and three for Negroes. Visits to the homes of patients are made by a staff of five workers, one of whom is a colored worker with special training in tuberculosis.

Heliotherapy Course

A special course on heliotherapy will be given at Leysin, Switzerland, by Dr. Rollier and his associates from January 16 to 21, 1923. Enrolments will be received up until December 20. The course includes a careful consideration of the technique and practice of heliotherapy as worked out in the sanatoria in and around Leysin. A course of a similar character held last summer was attended by 62 physicians from all parts of the world.

Nurses' Training Course

Under the joint auspices of the Glockner Sanatorium and Hospital Training School and the Colorado Springs School of Tuberculosis of Colorado Springs, Colo., a three months' course in tuberculosis for nurses has been organized. The courses are open on January 1st, April 1st, July 1st and October 1st of each year. The course consists of lectures, quizzes, class recitations, demonstrations and practice. Colorado offers unusual opportunities for practical clinical work of this character. The course is open to any graduate or under-graduate nurse but

is limited to ten students. Quarters and maintenance and $8 per month will be furnished in return for seven hours daily work in the wards.

Among the lecturers are Dr. Gerald B. Webb, Dr. G. B. Crouch, Dr. C. O. Giese, Dr. G. B. Gilbert, Dr. W. H. Swan, Dr. C. F. Gardner, Mrs. E. M. Pine and others. The instructresses are Sister Marie Gerald, Miss Jessica Ryle, Miss Elsie A. Kempf and Miss Irene Hunnekins.

More Sanmags

The following is a list of sanmags supplementary to those published in the August, 1922, number of the Journal, page 281:

The Shot, California Sanatorium, Belmont, Calif.

The Optimist, Camp Kearney, Calif.

The Grapevine, La Vina, Calif.

The Tranquillian, Tranquille, B. C.

The X-Ray, Nova Scotia Sanatorium, Kentville, N. S.

The Mountain Echo, The Mountain Sanatorium, Hamilton, Ont.

The Valley Echo, Ft. Qu'Appelle, Sask.

San Echoes, Essex Sanatorium, Middleton, Mass.

The Mountain Breeze, Ft. Bayard, N. Mex.

Pluck, Eagleville Sanatorium, Eagleville, Pa.

The American Legion Weekly Bulletin, South Pasadena Post, S. Pasadena, Calif.

Pine Needles, Plymouth County Hospital, Southampton, Mass.

The Chaser, Texas State Tuberculosis Sanatorium, Sanatorium, Tex.

Personal Items

Mrs. Helen deSpelder Moore, for the last three years field representative of the Michigan Tuberculosis Association, left the staff on September first to take a position in the Bureau of Nursing and Child Hygiene of the Michigan Department of Health.

Dr. L. W. Dudley has been appointed Superintendent of the Wisconsin State Sanatorium at Wales, Wis.

Dr. Leverett D. Bristol, formerly State Health Commissioner of Maine, has been appointed professor of preventive medicine and public health in the Medical and Graduate Schools of the University of Minnesota.

Dr. D. C. Lochead has recently joined the staff of the Minnesota Public Health Association as field secretary.

Dr. LeRoy S. Peters of Albuquerque has been appointed a member of the State Board of Public Welfare of New Mexico to succeed the late Dr. A. G. Shortle.

Dr. William F. King has been appointed secretary of the Indiana State Board of Health to succeed Dr. Hurty, resigned.

Doyle E. Hinton has begun work as executive secretary of the Florida Public Health Association.

Miss Jessie I. Lummis is the new secretary of the Denver Tuberculosis Society.

The death of Dr. C. W. Lillie, one of the pioneers in tuberculosis work in Illinois, is reported in the "Illinois Arrow." At the time of his death Dr. Lillie was secretary of the St. Clair County Tuberculosis Association, health officer of East St. Louis and a member of the Advisory Board of the State Department of Public Health.

A movement is under way in Oklahoma to name one of the state tuberculosis sanatoria the "Jules Schevitz Memorial." Mr. Schevitz died last winter. He had been for several years the secretary of the Oklahoma Public Health Association and had done much to bring into existence the three state sanatoria which are now in operation.

A community hall is under construction at the State Tuberculosis Sanatorium at Hamburg, Pa. The hall will be used for all social affairs, including the weekly moving-picture shows.

The State of Mississippi will soon have completed the large sanatorium for tuberculosis patients which was started in 1918 with accommodations for forty patients. A bill providing for a state sanatorium was passed in 1916, and at each session of the Legislature since that time additional appropriations have been made for extending the work. When completed, the sanatorium will have accommodations for both white and Negro patients, and will represent an expenditure of approximately $1,200,000.

Dr. Helen Flint, of Jennings, La., has been appointed field secretary of the Louisiana Anti-Tuberculosis League.

Death of Dr. Karl Von Ruck

Dr. Karl von Ruck, well known as a specialist in tuberculosis, died at Asheville, N. C., on November 6th, after an illness of several weeks. Dr. von Ruck was born in Stuttgart, Germany, in 1849, and was educated at the University of Tubingen. Later he came to America and studied medicine at the University of Michigan. In 1888 he established the Winyah Sanatorium at Asheville, N. C., one of the first private sanatoria for the treatment of tuberculosis in this country.

Notes of the Sanatoria

An appropriation of $100,000 has been made for the erection of a building for the treatment of cases of tuberculosis at Kings Park State Hospital for the Insane at Kings Park, L. I. (N. Y.).

The contract has been awarded for the administration building of the new county

tuberculosis hospital at Jacksonville, Florida. Plans call for a three-story building.

County commissioners of Lorain and Erie Counties (Ohio) have adopted a resolution agreeing to join in the erection of a tuberculosis hospital.

An appropriation of $75,000 has been made by the Ohio State Board of Control for two new cottages at the State Sanatorium at Mt. Vernon. The additions were authorized by the last legislature.

The administration building at Loomis Sanatorium, Loomis, N. Y., was recently damaged by fire, the estimated loss being $50,000.

The sum of one million dollars has been raised for rebuilding the Muskoka Sanatorium, Gravenhurst, Ont., which was destroyed by fire two years ago. The new institution will accommodate 450 patients.

A committee has been appointed to develop plans for a tuberculosis hospital for Kenton County, Ky., for which $30,000 has already been raised.

A formal protest has been made by residents of Media, Pa., against the location of a tuberculosis hospital. The commissioners of Delaware County recently bought a site of forty acres a short distance from the town for a county hospital.

Five scholarships of $1,000 each for the purpose of graduate public health work in America have been offered to Indian medical graduates by the Rockefeller Foundation, according to an item in the "Nation's Health."

The State Health Commissioner of Pennsylvania, Col. Edward Martin, has approved the plan of acquiring the Neversink Mountain Tuberculosis Hospital at Reading, for a county tuberculosis hospital. The local tuberculosis Society which has ben operating the hospital has agreed to give the property to the county, subject to payment of a debt of $24,000.

The proposed new Butler County (Pa.) Tuberculosis Hospital will have an initial capacity of 100 beds.

JOTTINGS

The King Edward VII. Welsh National Memorial Association has converted Craig-y-Nos Castle, the former home of Madame Patti, into a sanatorium for 104 consumptives.

A system of thorough physical examination of all of the employees of the New York State Department of Health has recently been put into effect.

The American Red Cross has assigned three nurses to a survey of several Indian reservations in the southwestern states. The survey is being made at the request of the U. S. Commissioner of Indian Affairs to determine the feasibility of public health nursing on these reservations.

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Ivan F. Goodrich, General Manager,

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